409-CD-510-001

EOSDIS Core System Project

ECS Overall Acceptance Test Plan for Release 5B

October 1999

Raytheon Systems Company
Upper Marlboro, Maryland

ECS Overall Acceptance Test Plan for Release 5B

October 1999

Prepared Under Contract NAS5-60000
CDRL Item #069

RESPONSIBLE ENGINEER

John Russey /s/ 10/12/99

John Russey Date
EOSDIS Core System Project

SUBMITTED BY

Mark McBride /s/ 10/12/99

Mark McBride, Director, Systems Engineering Date
EOSDIS Core System Project

Raytheon Systems Company
Upper Marlboro, Maryland

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Preface

This document presents the Release 5B Acceptance Test Plan (ATP) for the EOSDIS Core System (ECS). This is a formal contract deliverable with an approval code 1. It requires Government review and approval prior to acceptance and use. Changes to this document shall be made by document change notice (DCN) or by complete revision.

Once approved, this document shall be under ECS Project Configuration Control.

Any questions should be addressed to:

Data Management Office
The ECS Project Office
Raytheon Systems Company
1616 McCormick Drive
Upper Marlboro, MD 20774-5301

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Abstract

The Release 5B ECS System Acceptance Test Plan (ATP) describes the approach that the System Verification and Acceptance Testing (SVAT) Organization takes to verify applicable ECS Release 5B requirements. The Release 5B ECS System Acceptance Test Plan contains the overall acceptance test plan, processes, test cases and schedules that will be used to verify Release 5B functionality. The ATP specifies the method used to accomplish the Acceptance Testing of Release 5B. It defines the plan used to formally verify that Release 5B meets the specified operational, functional, and interface requirements.

Keywords: AM-1, Landsat 7, scenario, sequence, test case, acceptance, management, plan, verification, Release 5B, ATP, AT, SVAT.

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Document History			
Document Number	**Status/Issue**	**Publication Date**	**CCR Number**
409-CD-510-001	Original	October 1999	99-0818

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1. Introduction

1.1 Identification

This Acceptance Test Plan (ATP), Contract Data Requirement List (CDRL) item 069, whose requirements are specified in Data Item Description (DID) 409/VE1, is a required deliverable under the Earth Observing System Data and Information System (EOSDIS) Core System (ECS) Contract NAS5-60000. The Release 5B ECS System Acceptance Test Plan describes the approach System Verification and Acceptance Testing (SVAT) will take to verify applicable 5B requirements. The Release 5B ECS System Acceptance Test Plan contains the overall acceptance test plan, processes, test cases and schedules used to verify Release 5B.

1.2 Scope

The Release 5B system will provide additional capabilities above those provided in the Release 5A system. The new major capabilities provided by Release 5B are delineated in paragraph 3.1.2. In addition to the new capabilities introduced in Release 5B, the system will include modifications to address certain NCRs that have been written against the ECS system.

1.3 Purpose

The purpose of this Release 5B ECS System Acceptance Test Plan is to provide an overview of the overall acceptance test plan, process and schedule used to formally verify the ECS Release 5B meets all requirements as delineated in the 5B Science System Release Plan, 334-CD-510-001, for the ECS Project.

1.4 Status and Schedule

The submittal of DID 409/VE1 meets the milestone specified in the Contract Data Requirements List (CDRL) for ECS Overall System Acceptance Test Plan of NASA contract NAS5-60000. The submittal schedule is in accordance with the 5B Science System Release Plan, and the Master Program Schedule, as shown in Appendix B, the Primavera Schedule Listing.

1.5 Organization

The Release 5B ECS System Acceptance Test Plan is organized in five sections and two appendices. Sections 1-5 address the approach the SVAT takes to test the Release 5B ECS system. These sections apply to testing at all locations and include the following detail:

- Section 1. Introduction -- Provides information regarding the identification, scope, purpose, status and schedule, and organization of this document.
- Section 2. Related Documentation -- Provides a listing of parent documents, applicable documents, and documents which are used as source information.

- Section 3. Acceptance Test Overview -- Describes Release 5B capabilities and provides an overview of the acceptance tests.
- Section 4. Test Tools -- Describes the test tools used by SVAT to conduct ECS Release 5B System Acceptance Tests.
- Section 5. Test Preparation and Coordination -- Discusses the process by which formal acceptance testing is managed and executed.
- Appendix A; Acceptance Test Summaries – Provides a mapping of the Release 5B Test Cases to their associated Acceptance Criteria.
- Appendix B; Primavera Schedule Listing – Provides a print out of the Release 5B Acceptance Test schedule current at the date of print of this document.

2. Related Documentation

2.1 Parent Documents

The parent documents are the documents from which the scope and content of this document are derived.

334-CD-510	5B Science System Release Plan for the ECS Project
194-401-VE1	Verification Plan for the ECS Project, Final
420-05-03	Earth Observing System (EOS) Performance Assurance Requirements for EOSDIS Core System (ECS)
423-41-01	Goddard Space Flight Center, EOSDIS Core System (ECS) Statement of Work
423-41-02	Goddard Space Flight Center, Functional and Performance Requirements Specification for the Earth Observing System Data and Information System (EOSDIS) Core System (ECS)
423-41-03	Goddard Space Flight Center, EOSDIS Core System Contract Data Requirements Document

2.2 Applicable Documents

The following documents are referenced within this Test Procedures document, or are directly applicable, or contain policies or other directive matters that are binding upon the content of this document.

313-CD-510	Release 5B ECS Internal Interface Control Document for the ECS Project, Draft
607-CD-001	Maintenance and Operations Position Description for the ECS Project
http://ecsv.gsfc.nasa.gov/ecsv/reports/status/index.html	ECS Verification Database
http://dmserver.gsfc.nasa.gov/relb_it/5b.html	Release 5B Acceptance Test Procedures
http://dmserver.gsfc.nasa.gov/ecstest/	ECS Test Data Home Page
211-TP-005	Transition Plan 4PX to 4PY, 4PY to 5A, and 5A to 5B for the ECS Project
CM-1-016-1	"Software Development Using ClearCase" ECS Work Instruction
TT-1-001	“Test Preparation, Execution, and Documentation” ECS Project Instruction

TT-1-001-2	"Test Execution Activities" ECS Work Instruction
TT-1-001-3	"Criteria Verification and Test Status Log" ECS Work Instruction
TT-1-003-1	"Test Folders" ECS Work Instruction
505-41-11	Goddard Space Flight Center, Interface Requirements Document Between Earth Observing System Data and Information System (EOSDIS) and Version 0 System
505-41-12	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS Core System (ECS) and Science Computing Facilities
505-41-13	Goddard Space Flight Center, Interface Requirements Document Between the Earth Observing System Data and Information System (EOSDIS) and the Landsat 7 System
505-41-18	Goddard Space Flight Center, Interface Requirements Document Between Earth Observing System Data and Information System (EOSDIS) and MITI ASTER GDS Project
505-41-19	Goddard Space Flight Center, Interface Requirements Document Between the EOSDIS Core System (ECS) and the National Oceanic and Atmospheric Administration (NOAA) Affiliated Data Center (ADC)
505-41-21	Goddard Space Flight Center, Interface Requirements Document Between EOSDIS Core System (ECS) and NASA Institutional Support Systems (NISS)
505-41-22	Goddard Space Flight Center, Interface Requirements Document Between the EOSDIS Core System (ECS) and the Stratospheric Aerosol and Gas Experiment (SAGE III)
505-41-30	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the V0 System for Interoperability
505-41-31	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and NSI
505-41-32	Goddard Space Flight Center, Interface Control Document Between Earth Observing System Data and Information System, and the Landsat 7 System
505-41-33	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and Science Computing Facilities (SCF)
505-41-34	External Interface Control Document Between EOSDIS Core System (ECS) and ASTER Ground Data System

505-41-36	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the National Oceanic and Atmospheric Administration (NOAA) ADC for the ECS Project
505-41-39	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the Langley Research Center (LaRC) Distributed Active Archive Center (DAAC) for the ECS Project
505-41-40	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) the Goddard Space Flight Center (GSFC) Distributed Active Archive Center (DAAC) for the ECS Project
505-41-47	Goddard Space Flight Center, Interface Control Document Between the EOSDIS Core System (ECS) and the Stratospheric Aerosol and Gas Experiment (SAGE III) Mission Operations Center (MOC)
510-ICD-EDOS/EGS	Earth Observing System (EOS) Data and Operations System (EDOS) Interface Control Document Between the Earth Observing System (EOS) Data and Operations System (EDOS) and the EOS Ground System (EGS) Elements
552-FDD-96/010R0UD0	Goddard Space Flight Center, Earth Observing System (EOS AM-1 Flight Dynamics Division (FDD)/EOSDIS Core System (ECS) Interface Control Document
560-EDOS-0211.0001	Goddard Space Flight Center, EDOS Interface Requirements Document (IRD) Between the Earth Observing System (EOS) Data and Operations System (EDOS), and the EOS Ground System (EGS) Elements

2.3 Information Documents

The following documents, although not referenced herein and/or not directly applicable, amplify or clarify the information presented in this document, but are not binding on the content of this ECS System Acceptance Test Plan document.

420-TP-019	The Transition Approach to the ECS Drop 5A System, Technical Paper

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3. Acceptance Test Overview

3.1 Acceptance Test Overview

3.1.1 System Verification Approach

To verify that the ECS system satisfactorily supports the functions specified by the 5B Level 3 and Level 4 requirements, ECS has incorporated a verification database schema to capture related requirement sets in "Tickets" similar to those generated in Release 5A. A 'Ticket' represents each set of Level 3's, Level 4's, and IRDs that comprise the release capability features for that set of requirements. The ECS Architect Office generates verification acceptance criteria related to the requirements and incorporates them in each Ticket. The test organization identifies Test Cases to verify these acceptance criteria, which in turn, are linked in the Verification Database (VDB). The test verification database schema is depicted in Figure 3.1.1.

The Test Team works with the Development Organization during their integration period to become familiar with each subsystem and informally witness and assist the integration tests as they are developed and performed. These integration tests become a vital input and building block for the Test Team in generating their acceptance tests. Once defined and delineated, the acceptance test cases are scheduled in Primavera. The Test Procedures are then developed by the Test Team. Following an iteration of reviews by the AO and ESDIS with updates by the Test Team, the procedures are approved by ESDIS and posted on the WEB. Acceptance tests are dry-run and formally executed in the Verification and Acceptance Test Center (VATC) or the Performance Verification Center (PVC) and applicable DAACs as necessary. The test results are reported in the VDB, presented at the CSR, and recorded in the Acceptance Test Report (DID 412).

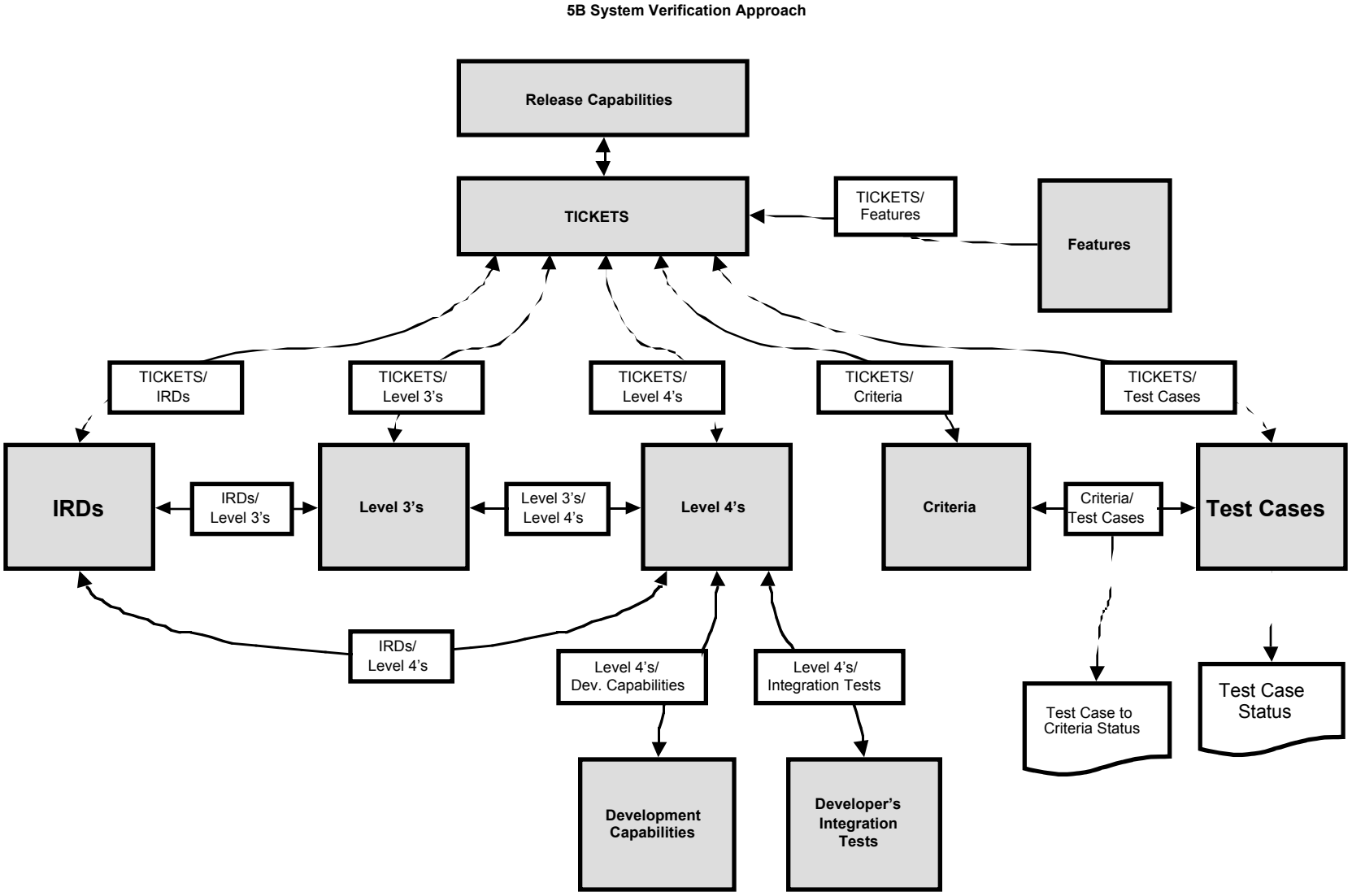

Figure 3.1-1. 5B System Verification Database Schema

3.1.2 Release Capability Priorities

Release 5B is being developed based on a set of Level 3 (L3) Requirements. These requirements support operational readiness and provide twenty-four Release Capabilities (RC). The following list describes these major RCs:

1. Java based DAR Tool enhancements for submit/query status. The Java-based DAR tool is a Java version of the user interface for the submittal of Data Acquisition Requests (DARs) for the ASTER instrument. Initially delivered in Release 5A, it will be updated in Release 5B to include enhancements for submit/query status functionality.

2. Integrated browse. In addition to the Release 5A functionality of browse supported by downloading files for later display, Release 5B will include functionality to support display of browse data as the result of a single user request from the search results screen.

3. One-way interoperability with ASTER GDS for on-demand requests. For Release 5B, ECS will provide the capability to submit on-demand requests to ASTER GDS for the generation of Level 1B products.

4. Two-way interoperability with ASTER GDS for Search/Order Requests. For Release 5B, ECS will provide the capability to support the searching and ordering of ECS data products by the ASTER GDS. Also the capability will be provided for ECS users to search and order data products from the ASTER GDS.

5. V0 Gateway enhancements to support full core metadata and product-specific attributes, Landsat 7 floating scenes, and billing. Release 5B will provide updates to the V0 gateway to support client requests for searches based on full ECS core metadata and product-specific attributes, Landsat 7 floating scene/band subsetting, and billing information for Landsat 7 data.

6. C++ SDP Toolkit. The SDP Toolkit will be updated in Release 5B to accept and compile science software source code written in C++.

7. Processing Toolkit upgrades to support concurrency. The SDP Toolkit will be updated in Release 5B to support thread-safe concurrent processing by the science software.

8. Restricted Granule Access. Release 5B will add the capability to restrict data sets at the granule level based on data quality information.

9. User Profile Enhancements. Release 5B updates the user profile capability to perform user authorization checks to determine the services available to a user. Based on granule quality flag information, granules access will be restricted by members of instrument teams or operations.

10. Closest Granule Production Rules. The processing system is updated in 5B to provide closest granule production rules required for AM-1.

11. Spatial Pad Production Rules. The processing system is updated in 5B to provide spatial pad production rules required for AM-1.

12. Orbit Processing Runtime Parameters Production Rules. The processing system is updated in 5B to provide orbit processing runtime parameters production rules required for PM-1.

13. Fully automated on-demand processing support with non-default parameters for Higher Level Products. Release 5B provides automated support for on-demand requests of higher level products for ASTER processing. A Web interface will be provided to receive user requests including user-supplied parameters. An On-demand Request Manager will meter the on-demand requests so no more than a pre-defined threshold of on-demand requests will be processing simultaneously. On-demand requests for the manual generation of ASTER DEM products will be supported. Products generated through this process, with the exception of the ASTER DEM products, will not be permanently archived, but will be regenerated upon each request.

14. On-Demand ASTER DEM. Release 5B will support on-demand requests for the manual generation of ASTER DEM. Products generated through this process will be permanently archived.

15. ASTER Browse. Release 5B will provide the capability to browse ASTER L1B and DEM products derived from the corresponding ASTER L1A product.

16. Update ESDT. Release 5B provides the capability for operations to update certain ESDT attributes without requiring the deletion of the data collection. This capability also supports release transitions and will be delivered early to support 4PY to Release 5A transition.

17. PM-1 ESDTs. ESDTs are developed in 5B to support MODIS, CERES, AIRS, AMSR on PM-1. This includes the allocation of these new ESDTs to specified archive volume groups for each DAAC.

18. DPREP Processing for PM-1. Release 5B provides the capability to preprocess science software required for PM-1.

19. Landsat 7 floating scene and band subsetting. Data retrieval and distribution of a subset of a Landsat 7 granule as selected by floating scenes (defined to be a partial subinterval consisting of variable number of scan lines) and/or individual bands is supported in Release 5B.

20. Landsat-7 Error Handling. Release 5B provides the capability to properly identify and correct errors that occur in matching Landsat-7 Format 1 and Format 2 during data ingest.

21. LLBox and Oriented Polygon. Release 5B will provide the capability to support client requests for spatial searches against collections that use LLbox and oriented polygon.

22. Persistent Queuing of Subscriptions. Release 5B provides enhancement to subscription capability to prevent queued request from being lost in the event of a hardware failure by providing persistent store.

23. Maintanence Tool Enhancement. Release 5B updates the maintenance tool for V0 Gateway enhancements and interoperability with ASTER GDS.

24. SDSRV Recovery and Queuing Enhancements. Release 5B enhances SDSRV recovery capability to queue request in the event of a hardware failure.

The missions supported by Release 5B are shown in Table 3-1.

Table 3-1. Mod 86, Topic 1, Launch Date and Releases GR&A

Satellite	Launch Date	SSI&T	Operations Version
Landsat-7	15-Apr-1999	N/A	4 or later
AM-1	19-Nov-1999	4 or later	4 or later
Meteor/SAGE III	31-Jul-1999	N/A	4 or later
FOO/ACRIM	31-Oct-1999	N/A	5A or later
PM-1	31-Dec-2000	5B	6A

3.2 Release 5B Requirements

Release 5B has been structured as an upgrade to Release 5A. The Release 5B system provides additional capabilities above those provided in the Release 5A system. These additional capabilities are linked to criteria for Release 5B (as currently planned) and identified in Appendix A. In addition to the new criteria to be verified in Release 5B, the system will have to be tested to verify modifications that addressed certain NCRs that have been written against the ECS system. Future NCR fixes for Release 5B will be identified based upon NCR priority and severity.

3.3 Release 5B Acceptance Test Approach

The objective of the ECS formal testing activity is to verify that the 5B software release is compliant with the established Acceptance Criteria delineated in the Release 5B Requirements Acceptance Tickets ("Tickets").

Systems Engineering (SE) produces the Tickets based on a traceability of the IRDs to Level 3 Requirements, and Level 3 Requirements to Level 4 requirements that will ultimately be baselined in the VDB. SE generates Acceptance Criteria for each Ticket that, in accordance with ESDIS approval, are formulated to verify the requirements associated with that Ticket. The Test Organization is responsible for delineating the test cases that will be generated to test the Acceptance Criteria.

The Release B test approach is structured on two software turnovers: Turnover 1 and Turnover 2. The testing process, consisting of procedure development, review, updates, dry-run and formal test, is the same for each turnover and is repeated as the capabilities for Turnover 2 are made available. A set of regression Test Procedures is identified in the Interim Turnover 1 period so these tests can be run on the Turnover 2 release to insure the system has not degraded from the first turnover. Figure 3.3-1 depicts the staging and testing of the two turnovers.

As the Development organization moves into the integration phase of its activities, it begins execution of the integration procedures. By working with Development's integration team, the

Test Team uses this information to finalize the list of acceptance test cases, and begin formal development of actual acceptance test procedures.

The hardware and software environment is analyzed to determine the expected fidelity of VATC testing and identify any test that, due to the DAAC-specific nature of the acceptance criteria, needs to be executed in one or more DAAC environments. The Test Team uses this analysis, the Acceptance Criteria in the Tickets, and the preliminary test procedure list to delineate the final list of tests to be performed. Similarly, performance criteria are evaluated and tests are scheduled for the PVC as required.

By observation and support to Development's integration team effort, the Test Team refines each test procedure by first developing a high level flow of test actions, followed by a functional description of test actions and then by the detailed test actions. The Test Team determines test dependencies and interactions, and sequences. As each test procedure is generated, it is posted to the web, and is the object of a peer review before being submitted to the Government for review, comment and approval. The final test procedure is included as part of CDRL 411, ECS System Acceptance Test Procedures. Test cases are identified in Appendix A and the procedures are housed on the web at http://dmserver.gsfc.nasa.gov/relb_it/5b.html

As soon as software is available, the acceptance tests are dry run whenever possible. Following a successful Installation and checkout in the VATC, and when sufficient confidence is attained that the tests can be performed, the test organization schedules the Test Readiness Review (TRR). The TRR is an internal review under the control of ECS systems engineering. The TRR baselines the Government approved revisions/comments to the test procedures. The TRR also establishes the day-by-day sequence of tests to allow for a metrics-based analysis of test program progress. Following a successful TRR, dry runs and formal tests are conducted in the VATC or PVC. All requirements able to be demonstrated in the VATC or PVC are addressed as part of formally witnessed tests.

External interface testing is conducted to the extent possible in each test environment under conditions that simulate operational activities. In cases where it is not possible to achieve a reasonable level of fidelity in the VATC, formal verification of acceptance criteria occurs in one or more DAAC environment(s).

With the deployment of the release software to the field, the test organization travels to each site to participate in the installation and checkout of the system. In addition, the test team performs regression testing and conducts any acceptance tests (or portions thereof) that are required to verify acceptance criteria that could not be verified in the VATC or PVC. The Regression Tests are a set of core and site specific procedures. The core procedures establish confidence in the general capabilities of the deployed system while the site specific tests demonstrate that the system functions within the unique environment of each site.

Following this on-site activity, the test program concludes with a Site Readiness Acceptance (SRA) to review the completion of the test program at each DAAC. At the SRA, the results of testing are presented.

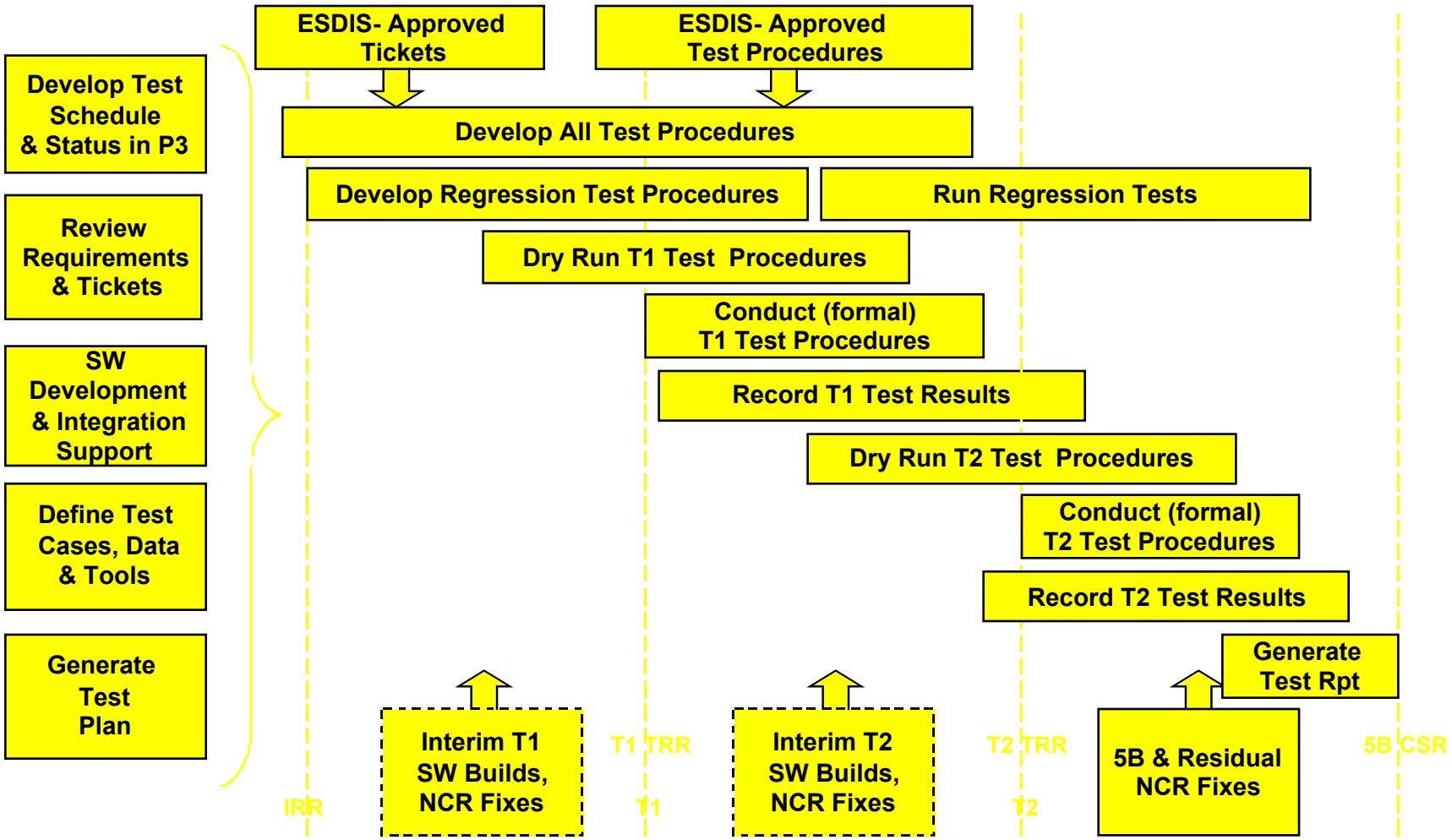

Figure 3.3-1. Test Approach with Turnover 1 and 2

3.3.1 ECS Acceptance Criteria Tests

The complete set of ECS Acceptance Criteria allocated to Release 5B is verified to ensure that the release meets those requirements needed to provide specified functionality for the AM-1, Meteor/SAGE III and Landsat-7 missions. This includes verifying all test criteria relating to requirements needed to support the ECS Release objectives for data operations, information management and archive, science processing, networks, and system management at each site. Release 5B functionality and performance is verified in the VATC and the PVC using system verification tests.

3.3.2 Transition Verification

The deployment of this release is in accordance with the transition plan, 211-TP-005-003 (or the latest revision in effect). The verification of the 5B release includes the checkout procedures provided with the software release and DAAC-specified functional verification tests. The latter includes site-specific subsystem checkout procedures, PGE regression testing, and operational verification procedures.

Transition preparation begins with the design, development, integration, and checkout of the procedures and software (e.g. scripts) required to perform the operational transition of the 5B software release. These activities are the responsibility of Development and are performed initially in the EDF. Concurrently, the Test organization updates the release checkout procedures based on guidance provided by the transition plan. The transition plan identifies functional tests that should be performed after transition, and prioritizes the tests as primary or secondary. Primary tests must be performed after transition whereas secondary tests are performed at the discretion of the DAAC, based on the actual timeline.

Once integrated in the EDF, a second integration and checkout phase begins in the VATC. During this phase, the transition and on-site checkout procedures are exercised and refined. The period in the VATC is also used to train the installation team, including DAAC personnel. This effort results in an improved set of procedures and a cohesive team.

Transition at the DAAC(s) is initiated upon completion of the VATC checkout and the Pre-Shipment Review (PSR). The DAAC staff is responsible for the transition and testing of the release, with support from ECS/Landover. The baseline schedule at each DAAC spans a 3-week period. During the first week, one test mode is transitioned to the new release. The goals during this period include refinement of the transition procedures and additional training for the installation team. The second week includes the transition of the remaining test mode. This transition is used as a dry run of the Ops transition, confirming the capability to perform transition to the target time line. After each of the test mode transitions, the DAAC performs their functional verification tests, including PGE regression testing. Once the test modes have been transitioned to the new release and the DAAC testing is complete, the Ops mode transition is performed. Testing of the Ops transition includes at a minimum the primary checkout procedures. Additional testing, including the secondary checkout procedures and DAAC-specified tests, is performed at the discretion of the DAAC manager.

The local test program concludes with a CSR. The CSR documents the results of the VATC test program including requirement verification status, liens associated with the release and a lien work-off plan, if needed.

3.3.3 Reliability, Maintainability and Availability (RMA) Tests

Many of the RMA requirements are verified outside of the Acceptance Test phase through inspection or analysis. The analysis of these requirements are documented in the Contract Data Requirements List (CDRL) and described by the Data Item Descriptions (DIDs) as indicated below:

Availability Models/Predictions (515)

Reliability Predictions (516)

Maintainability Prediction (518)

The RMA requirements are listed with the applicable scenario groups and are marked to indicate that the procedures were verified through other activities prior to the actual Acceptance Test Procedure execution.

3.3.4 Other Requirements

A few of the ECS requirements require that some, or all, of the EOSDIS components be available during acceptance tests, that analysis be conducted in view of all EOSDIS components, or that analysis occurs over time. These requirements are verified outside of the Acceptance Test time frame and require the coordination of other responsible EOSDIS personnel.

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4. Test Tools

4.1 Test Tools

This section identifies and describes the test tools (COTS and custom coded software) used in the execution of the Release 5B ECS Acceptance Tests and the generation of test data sets. The tools for requirements traceability, computer aided software test, configuration management, network status and monitoring, and external interface simulators are discussed below. Table 4-1 summarizes the test tool suite available for Release 5B acceptance tests.

Table 4-1. Release 5B Test Tool Descriptions (1 of 2)

Category	Tool Type	Tool	Tool Description
COTS	Requirements, Capabilities, Features, Criteria, and Test Case Cross Reference Tool	VDB (ECS System Verification Data Base)	The ECS System Verification Database tool provides an audit trail of requirements, capabilities, features, criteria and test cases to which they are linked. The tool also provides the verification status of all of the above.
COTS	Scheduling and Status Reporting	Primavera	Primavera is used to establish the basic day-by-day testing schedule and the status of acceptance test progress.
COTS	Configuration Management Tool	Clear Case	Clear Case is the principal configuration management tool that uses Version Object Base (VOB) to store the software versions.
COTS	Nonconformance Reporting and Corrective Action Tool	DDTS	DDTS is a UNIX change management and bug tracking system that tracks and manages changes throughout the life cycle of a hardware or software product from initial requirements planning to obsolescence in the field. DDTS works in conjunction with ClearCase.
COTS	Network Management Framework	HP Open View	HP OpenView is used to monitor any device that supports the Simple Network Management Protocol (SNMP). This tool aids determining the status of the network and the devices on the network.
COTS	Network Analyzer/Monitor	Network Analyzer/ Sniffer	The Sniffer/Network Analyzer assists in performance testing and monitors and generates traffic on Ethernet and FDDI networks.
COTS	Network Performance Tool	Netperf	Netperf is a benchmark tool that measures various aspects of network performance; primarily focusing on bulk data transfer and request and request/response performance using either the TCP or UDP and the Berkeley Sockets interface.

Table 4-1. Release 5B Test Tool Descriptions (2 of 2)

Category	Tool Type	Tool	Tool Description
COTS	Capture and Playback Automated Test Tool	XRunner	XRunner is an automated software testing system for Xwindow applications. Xrunner automates the full range of software testing needs. Some of the gained functionality includes output synchronization, text recognition, and a high-level testing mode that operates directly on GUI objects.
COTS	Automated Client/Server Testing System	Load Runner	LoadRunner is an automated testing system for client/server applications on UNIX/X platforms. By running multiple users in parallel off the server, LoadRunner enables the automation of load testing, performance testing, and system tuning.
COTS (ETS)	Production Data Set Generation System	SCTGEN	SCTGEN simulates L0 processing systems like EDOS by generating Production Data Sets (PDS).
COTS (SDPF Toolkit)	Level 0 Simulator	L0sim	Generates L0 products in packet format with associated headers.
COTS (HDF Command Library)	HDF File View Tool	vshow	Allows a user to view an HDF file. The output of vshow can be redirected to a file and be printed.
COTS (ECS Development)	HDF File View Tool	EOSview	Allows a user to view an HDF file in selectable parts including metadata portions.
COTS	HDF File View Tool	HDF Browser	Another HDF view tool.
Customized	Metadata Editor & File Generator	mdedit	Allows a user to modify metadata portion of and HDF file and generate any number of additional HDF files.
Customized	Metadata Simulator	(Perl script) and Tcl/Tk	A GUI based tool that allows a user to populate the science data server with realistic metadata.
Customized	Level 0 (packet) View Tool	PDSview, Crview, PKTview	Allows a user to look at packet headers, and construction record(s)
Customized	Level 0 Cloning Tool	Grangen	Allows user to clone many L0 granules from one granule w/PDR
Customized	file dump utility binary file editor	dmp hex	Allows a user to display any file in hexadecimal and ASCII. Allows a user to display and edit any binary file.
COTS	Contains CIL/CAL	XRP	XRP allows to track and audit configuration accountability of ECS hardware and software.
Customized	Installation Tool	ECSAssist	Enables the ECS custom code to be installed.

4.2 Test Planning and Statusing Tools

There are two systems in use on ECS that facilitate the acceptance test planning and statusing process. The use of these tools focus on identifying, cross-referencing, and tracking: features,

capabilities, requirements, criteria, and test cases. These tools are the ECS System Verification Database (ECSVDB) tool and the Primavera Scheduling tool.

4.2.1 ECS System Verification Database (ECSVDB)

The ECS System Verification Database (ECSVDB) tool provides an audit trail for ECS requirements, capabilities, features, criteria and test cases. All acceptance test procedures are linked to Acceptance Criteria, which are in turn linked to Level 4 Requirements traceable to Level 3 system requirements via Tickets. ECSVDB contains the official version of all ECS Release 5B requirements and their mapping to test cases. It also contains the status of the ongoing verification process. As test procedures are executed, their impact on the verification status of related criteria are entered into the individual test folders the Release 5B Criteria Log. The contents of these logs are used to periodically update the features and requirements verification status in the ECSVDB. A variety of ECSVDB reports can be obtained through contact with the ECSVDB Web site http://ecsv.gsfc.nasa.gov/ecsv/reports/status/index.html . Release 5B acceptance testing will be conducted with primary emphasis on the verification of Acceptance Criteria that are linked to functional, error, and performance constraints whose relevance to test procedures are found in the ECSVDB data base.

4.2.2 Primavera Scheduling Tool

Primavera is the basic scheduling resource used by ECS in scheduling and statusing work progress. All test procedure preparation and conduct is scheduled using Primavera. As testing proceeds, Primavera is up-dated to record progress. Primavera also links capabilities being implemented by the development activity to the test cases that will verify the capability's existence and effectiveness.

4.3 Computer Aided Software Test and Performance Tools

The Mercury XRunner and LoadRunner tools are computer aided software test and performance test tools used to assist in the automation of testing. XRunner is designed to automate the test process by capturing, in a script file, keyboard, mouse input and system under test (SUT) responses, and then playing back those inputs and comparing the results to those stored in an expected results directory. LoadRunner is used to simulate a large number of actual users, in order to measure the response time of a server in a client/server application. Both tools offer sophisticated programming capabilities through a C based language called Test Script Language (TSL) that can be used to drive the system under test much more extensively than would be possible with manual testing. It also offers the virtue of repeating a test sequence with fidelity. The XRunner and LoadRunner tools also provide very reliable playback of user input.

The primary use of the XRunner tool is the automation of functional tests that involve heavy use of graphical user interfaces. Examples of such user interfaces are the Release 5B DAAC or SMC operator screens.

LoadRunner is utilized for all response time testing that involves the Release 5B desktop GUI and during End-to-End tests that involve large numbers of test and operations personnel at multiple sites.

Upon completion of a test script execution, both XRunner and LoadRunner automatically generate test execution reports. LoadRunner generates performance graphs for analysis.

4.4 Configuration Management Tools

The ECS Configuration Management Organization (CMO) is responsible for the management and control of the Software Development Library (SDL) and the baseline configuration management of hardware and software. The Nonconformance Reporting (NCR) system is administered by System Engineering for the NCR Control Board. Two software tools are used to support these efforts: ClearCase and the Distributed Defect Tracking System (DDTS).

4.4.1 ClearCase

The CMO utilizes ClearCase to manage and control the Software Development Library (SDL) which is the central repository for ECS software including test verification items. ClearCase, an automated software tracking tool, manages multiple versions of evolving software components; tracks which versions were used in software builds; performs builds of individual programs or entire releases according to user-defined version specifications; and enforces site-specific development policies. ClearCase scripts are provided by CMO to be used throughout the software development life cycle in order to standardize and automate the tracking of the information in the SDL. The project instruction CM-1-016-1, Software Development Using ClearCase, describes the SDL, the role of ClearCase in the SDL, and the associated ClearCase scripts.

The following test items are stored and baselined by the CMO, via the Software Turnover Process, as they are finalized.

- Verification documents, including test plans, procedures, scripts, and reports
- Test data sets, software and hardware configuration, including test tools
- Unit-tested components, data sets, hardware configuration, and COTS software
- Verified system builds

Since Acceptance Testing of the ECS is conducted within a baselined configured environment, ClearCase is installed at each test site; and CMO electronically deploys the binary files (executable) of ECS software at each test site. In order to maintain the integrity of the test script and test data, CMO deploys SVAT's test scripts and test data, in the same manner they deploy ECS binary files. This allows the Acceptance Tester, at each test site, to maintain a baseline of changes to the test script and/or test data for the purpose of local configuration or providing a work around to problems.

4.4.2 Distributed Defect Tracking System (DDTS)

The DDTS records nonconformances and reflects the progress of Nonconformance Reports (NCRs) through resolution and captures necessary information to document that progress. Through the production of management reports, DDTS provides management visibility and metrics to insure that NCRs are being worked in a timely and effective manner. The policies and procedures governing the usage of DDTS on ECS are defined in the Non-Conformance Tracking Project Instruction (PI), SD-1-014.

4.4.3 Baseline Manager (XRP)

The Baseline Manager is used to record and report the design and as-built operational baselines for ECS. It contains the configuration record for baselined items or products. It tracks products by unique identifier, description, location, and model/version, and it identifies the configured articles that are the components of an approved baseline or assembly. It also provides traceability of baselines and products to previous versions and configurations.

The Baseline Manager tool contains the official Configuration Items List and Configuration Articles List used as a basis for the Functional Configuration Audit and Physical Configuration Audit approved by the ECS CSR and SRA for each release.

4.5 Network Status and Monitoring

The three network tools utilized in acceptance tests are the HP OpenView, Sniffer Network Analyzer, and Netperf. Each are described below.

4.5.1 HP OpenView

The HP OpenView is a network tool that monitors and controls the entire network environment at each ECS site. As a diagnostic tool, it has the capability to isolate faults quickly. The tool allows the user to display a map of the network environment at that local site for the LSM and the maps of all sites at the SMC. These maps are real-time interactive graphical representations which allow the user to detect network problems as they occur without having to update or refresh the display screen, and to diagnose network connectivity. The tool allows the user to create submaps of the map that can be as small as a software component on the system.

4.5.2 Network Analyzer/Sniffer

The Network Analyzer/Sniffer is a fault and performance management tool that analyzes network activity and identifies problems on multitopology and multiprotocol networks.

4.5.3 Netperf

Netperf is a benchmark tool that measures various aspects of network performance. Its primary focus is on bulk data transfer and request/response performance using either the TCP or UDP and the Berkeley Sockets interface.

4.5.4 ECS Assistant

ECS Assistant is an installation tool that enables the ECS custom code to be installed.

4.6 External Interface Simulators

External interface simulators are used during acceptance testing when the real interfacing system is not available. For Release 5B, the simulators used for acceptance testing are described below.

4.6.1 EOSDIS Test System (ETS)

The ETS is primarily designed to support ECS Release 5B and EOS Ground System (EGS) testing. For Release 5B, pending availability, the Low Rate System and the Multimode Portable Simulator is used for EOC testing. In this configuration, ETS provides simulated telemetry data.

4.7 Data Editor, Generators, and View Tools

During acceptance testing, a variety of data editors, generators and viewing tools are used. Each of these tools is described below.

4.7.1 SCTGEN

SCTGEN is a software package with a graphical user interface that simulates CCSDS and non-CCSDS telemetry for both forward and return link data streams. When used as a test tool for EOSDIS it simulates EOS Data and Operations System (EDOS)-generated data products, such as EDOS Data Units (EDU), Expedited Data Sets (EDS), and Production Data Sets (PDS). SCTGEN provides comprehensive error insertion capabilities. SCTGEN generates test data off-line, and does not present a schedule conflict with operational systems. SCTGEN is a portable software system and requires little in terms of resources. The Simulated Consultative Committee for Space Data Systems (CCSDS) Telemetry Generator (SCTGEN) generates telemetry data files and related sets in various formats according to ECS specifications. In conjunction with other ETS components, SCTGEN supports EOS ground system integration, testing, verification, and validation.

4.7.2 Metadata Editor (mdedit)

The Metadata (mdedit) software test tool allows editing of the metadata portion of HDF files and the creation of any number of new files based upon the begin and end times specified. The mdedit tool uses one file as input and produces any number of output files all the same length and basic structure of the input file with the metadata values possibly modified. The original input file is unchanged, and a log file that encapsulates all the important information of the session is recorded.

4.7.3 L0 Granule Generator (Grangen)

The L0 Granule Generator (Grangen) software test tool allows the modification of the packet start and stop time (spacecraft portions of the construction record and packet time stamp in the secondary header of the packet file of the Production Data Set). The Grngen uses two files as input and then produces a new PDS construction record and packet file(s). The original input files are unchanged, and the new PDS files uses the current time as the set creation time imbedded

in the file name and PDS_EDS_ID of the construction record. Grangen allows for PDR product delivery records to be made.

4.7.4 L0sim

The L0sim allows the creation of various level 0 data products, such as CCSDS packet files in various formats. EDOS AM-1 is a sample of the various formats supported. The L0sim runs from the UNIX command prompt. It prompts for input, such as file start and stop date, time interval between packets, APID, and the name of the file containing simulated packet data.

4.8 HDF File Display/View tools

HDF file display and viewing tools are explained below.

4.8.1 EOSview

EOSview is a file-viewing tool that examines and verifies the HDF and HDF-EOS data files. EOSview allows the viewing of the HDF files and individual objects and displaying of all metadata fields and data objects. Attributes and annotations can also be viewed.

4.8.2 HDF Browser

The HDF Browser utility enables the examination of HDF file's hierarchy and components. When an HDF file is opened, the HDF Browser displays the hierarchical structure and organization of the file's contents. The capability for viewing each object in the file is also provided.

4.8.3 vshow

The vshow tool is a command-line utility that is executed from the UNIX shell prompt. Vshow lists and displays information about Vdata objects in a HDF file. In addition, the metadata portion of the HDF file is displayed.

4.8.4 Basic File Display/View/Edit Tools

Basic file display capabilities include UNIX commands such as dmp, hexpert, od-x, od-c, diff and sdiff. These commands can be used for file displays, viewing and editing.

4.9 Test Data

A variety of test data is required to exercise the Release 5B system at each site. This test data will be used in conjunction with the simulators described above to simulate the system. Real test data provided by the instrument teams is used whenever possible. In situations where real data is not available, simulated data or similar heritage data is used for testing. The test data is validated and placed under configuration control prior to test execution.

Further information concerning the availability of data sets can be found on the Test Data Home Page: http://dmserver.gsfc.nasa.gov/ecstest/.

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5. Test Preparation and Execution

This section describes the process by which formal acceptance testing is managed and conducted. The responsibilities of the test manager and test engineers are also described.

5.1 Acceptance Test Preparation

As a fundamental part of the initial test process, System Engineering performs a detailed requirements analysis which includes reviewing and correcting L3 requirement to L4 mappings. The intent is to ensure that the flow-down fully satisfies the Level 3s and IRDs. ECS System Engineering will then define a set of Acceptance Criteria (AC) for the requirements and group them into Tickets. Verification and sell-off of the L4s, L3s and IRDs will be accomplished by virtue of the verification of Acceptance Criteria defined in the Tickets. ACs are functional, error, or performance in nature. As part of the System Verification and Test (SVAT) organization responsibility, a set of test cases will be developed which satisfy the ACs for a given Ticket. The tests that are planned to be developed are listed in Table 5.1-1 and summarized in Appendix A. Wherever possible, one acceptance test is allocated per Ticket. This mapping is captured and tracked in the VDB along with the requirements and Acceptance Criteria previously discussed.

Upon development of requirement groupings in a Ticket, SVAT assigns resources to each of the requirement groupings. As initial ACs are developed, the systems engineering Architect's Office (AO) will provide the ACs to the responsible SVAT personnel. The initial development of test procedures starts at the completion of grouping of the requirements. SVAT refines the test procedures as the ACs are developed and approved. The focus is on major capabilities, not underlying subsystems. Functional, error and performance criteria may be verified in the same test. SVAT provides the design summaries of the test procedures to the responsible Architect Office (AC developers) and ESDIS for review. The AO and ESDIS review the test procedures developed by SVAT, and ESDIS approves the final test procedures. To simplify the process of verification, each test procedure will uniquely cover any ACs associated with each requirement grouping. That is, the ACs associated with each grouping of requirements will be uniquely mapped to one test procedure. A test procedure may cover more than one AC in a group.

For Release B internal Peer Reviews of Acceptance Tests will be conducted. A walk-through of the test package will be conducted with the responsible Test Engineer, Architect Office representatives, software development representatives and operations personnel participating. This should streamline the review process turnaround time with a single review of the material. The updates to the procedure as a result of these reviews will make the test ready for ESDIS review. The final process for ESDIS approval is the same as the process for test procedures developed for Pre-launch Releases.

Table 5.1-1. Test Case Summary

Test	Ticket	Level-3 Requirements	Level-4 Requirements	Capabilities	Functional Components	Error Conditions	Performance Constraints	Turnover-1	Turnover-2	VATC	PVC	GSFC	LaRC	EDC	NSIDC
Toolkit -No Acceptance Test Required	RH01	1	13	1	8	0	0	T1		X					
Toolkit -No Acceptance Test Required	RH02	1	2	1	13	12	0	T1		X					
5B09010 - Closest Granule Production Rule	RH03	1	4	2	6	2	0	T1		X					
5B09020 - Spatial Pad Production Rule	RH04	1	3	2	6	1	0	T1		X					
5B09030 - Orbit Process Run Time Parameters Prod Rule	RH05	1	15	1	11	0	0	T1		X					
5B10020 - Persistent Queuing of Subcription Actions	RM02	1	9	1	8	0	0	T1		X					
5B10030 - V0 to ECS GateWay (Integrated Browse)	RM06 RM08	3 2	5 6	1 1	1 4	0 0	1 1	T1		X	X				
5B08010 - Maintenance Tool Management (ASTER)	RM07	2	10	4	8	0	0	T1	T2	X				X	
5B10040 - ASTER Gateway	RM09	3	66	16	14	8	0	T1	T2	X				X	
5B08030 - SDSRV Queuing and Recovery	RM12	1	6	1	3	0	0	T1		X					
5B09050 - Ingest Cancel	SM01	5	8	7	2	0	1	T1		X	X				
5B09060 - Ingest Database Data Type Verification	SM01				1	0	0	T1		X					
5B09070 - Ingest Auto-Suspend/Cancel/Resume	SM01				4	0	0	T1		X					
5B09080 - NCEP03 Data Ingest & Archive	SM01				1	0	0	T1		X					
5B09040 - DPREP Processing for PM-1	RH06	1	11	1	6	4	0		T2	X					
5B10010 - LLBox & Oriented Polygon	RM01	4	11	2	10	0	0		T2	X					
5B12010 - ASTER On-Demand (ASTER L1B)	RM03	10	39	6	10	4	0		T2	X					
5B12020 - ASTER On-Demand Dig. Elev. Model (DEM) Func.	RM04	5	27	3	5	2	1		T2	X	X				
5B12030 - On-Demand ASTER Higher Level Products	RM05	6	64	5	19	7	1		T2	X	X				
5B10050 - Restrict Granule Access	RM10	5	18	1	13	4	0		T2	X					
5B08020 - User Profile Enhancements	RM11	4	4	2	2	2	0		T2	X					
5B08040 - Update ESDT	RM13	1	39	3	4	8	0		T2	X					
5B10060 - Landsat-7 Floating Scene Subsettisng	SM02	9	31	5	10	5	1		T2	X	X				
5B08050 - Landsat-7 Error Handling	SM03	1	7	1	6	1	0		T2	X					
5B10070 - JAVA DAR Tool	SM04	2	27	1	9	3	1		T2	X	X				
5B12040 - ASTER Browse	RM14	2	4	1	4	2	0		T2	X					
5B08060 - Database Report Generation	EN01	1	N/A	1	10	0	0		T2	X					
5B10090 - Registry Services	HA01	1	25	1	5	0	0	T1		X					

SVAT will follow established standards for documenting test procedures. Each test procedure will identify the incremental steps for verifying the Acceptance Criteria for that test.

SVAT will conduct dry runs followed by formal tests to verify the approved ACs with designated witnesses and using the approved test procedures. Dry runs are scheduled as soon as a pre-turnover release software is available in order to exercise capabilities early and to provide feedback to the development organization in the form of NCRs. The acceptance tests will be performed in the VATC, and in the Performance Verification Center (PVC) with tests containing performance constraints.

The status of each step of the test preparation and execution will be captured and reported-on using the sample status report matrix shown in Table 5.1-2

Regression testing is performed during integration and checkout of the Turnover 2 release of software, as well as any incremental major software build, to ensure no degradation or modification has occurred to the release already tested. The regression tests are comprised of a representative suite of procedures pulled from the Acceptance Tests.

5.2 Test Execution

The 5B Release development approach consists of two software turnovers, each turnover containing a portion of the capabilities for the release. The test procedures are derived from the acceptance criteria in the tickets and the software integration test activity. The generation of the test procedures is begun with the availability of either of these inputs and the final drafts are completed with both. Table 5.1-1 delineates the summary of the 5B Release allocation of Level 3, Level 4, capabilities and criteria to test cases and identifies in which Turnover the test cases will be exercised.

The software release is installed in a dedicated mode(s) in the VATC for formal testing. Following dry-runs to ensure successful execution, formal tests are conducted to verify the set of Release 5B criteria reflected in Appendix A. All applicable criteria are demonstrated in the VATC as part of formally witnessed tests, or in the PVC if performance constraints are to be verified. External interface testing is conducted to the extent possible in each test environment under conditions that simulate operational activities.

Test execution in the VATC concludes with a Consent to Ship Review (CSR). The CSR documents the results of the VATC test program including verification status, liens associated with the release and a lien work-off plan if needed. Successful conduct of the CSR is predicated on satisfactory FCA results and resolution or agreed-to liens on severity 1 and 2 NCRs. The successful CSR milestone marks the ESDIS approval to ship the Release to the field.

Before deployment of the release, ECS ensures close coordination with each DAAC to plan the on-site delivery. This includes on-site ECS/Landover support for test execution and post-test analyses that may be required. On-site deployment is concluded with the conduct of a Site Readiness Assessment (SRA) at each DAAC. Following the SRA, with the release to the sites in the field, the responsibility and control for the system is turned over to the M&O organization. The M&O staff will conduct the CCB for changes and manage NCR fixes and modifications. Successful completion of the SRA is based on satisfactory FCA results and no severity 1 or 2 NCRs against new capabilities as a result of the site testing.

Table 5.1-2. Sample Test Progress Report Chart

Seq No.	Test Case	Ticket ID	Turnover	Test Engineer	Draft Ticket	Ticket Approved	Test Summary	Start Draft	Peer Review	Draft to ESDIS	Final SE Review	Submitted to ESDIS	Returned from ESDIS	Procedure Updated	Final Approval/Test Procedure Complete	Dry Run Start	Dry Run Complete	Formal Run Start	Formal Test Complete	NCRs Against Test?
1	5B09010 - Closest Granule Prod Rule	RH03	1	L.Vaughn	X	X	X	X												
2	5B09020 - Spatial Pad Prod Rule	RH04	1	D.Fountain	X	X	X	X												
3	*5B09030 - Orbit Process Run Time Parameters	RH05	1	D.Fountain	X	X	X	X												
4	5B10020 - Persist Que of Subcript	RM02	1	M.Tran	X	X	X	X												
5	5B10030 - V0 to ECS GateWay (Integrated Browse)	RM06 RM08	1	J.Tsou	X X	X X	X	X												
6	5B08010 - Maintenance Tool Management (M Tool Enhancements)	RM07	1/2	E.Lamptey	X	X	X	X												
7	5B10040 - ASTER Gateway	RM09	1/2	J.Tsou	X	X	X													
8	5B08030 - SDSRV Queuing & Recovery	RM12	1	C.Ramsey	X	X	X	X												
9	5B09050 - Ingest Cancel	SM01	1	A.Lee			X	X												
10	5B09060 - Ingest Database Data Type Verification	SM01	1	S.Ritter	X	X	X	X												
11	5B09080 - NCEP03 Data Ingest & Archives	SMO1	1	K.Miller			X	X												
12	5B09070 - Ingest Auto-Susp/Can/Resume	SM01	1	D.Shoup			X	X												
13	5B09040 - DPREP Processing for PM-1	RH06	2	L.Vaughn	X	X	X													
14	5B10010 - LLBox & Oriented Polygon	RM01	2	M.Ricucci	X	X	X	X												
15	5B12010 - ASTER On-Demand (ASTER L1B)	RM03	2	E.Lamptey	X	X	X													
16	5B12020 - ASTER On Demand DEM	RM04	2	L.Gant	X	X	X	X												
17	5B12030 - On-Demand ASTER Hi-Lev Products	RM05	2	D.Fountain	X	X	X													
18	5B10050 - Restrict Gran Access	RM10	2	J.Rattigan	X	X	X	X												
19	5B08020 - User Profile Enhancements	RM11	2	V.Khatri	X	X	X	X												
20	5B08040 - Update ESDT	RM13	2	J.Rattigan	X	X	X													
21	5B10060 - L7 Floating Scene Sub	SM02	2	P.Vickers	X	X	X	X												
22	5B08050 - L7 Error Handling	SM03	2	P.Vickers	X	X	X													
23	5B10070 - JAVA DAR Tool	SM04	2	S.Chaudhari	X	X	X	X												
24	5B12040 - ASTER Browse	RM14	2	K.Miller	X	X	X	X												
25	5B08060 - Database Report Generation	EN01	2	R. Ginnochi	X															
26	5B10090 - Registry Services	HA01	1	H. Nguyen	X															
					24	23	24	18	0	0	0	0	0	0	0	0	0	0	0	0
				% Complete:	100%	96%	92%	69%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
				Previously Reported % Complete:	100%	82%	100%	38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

5.3 ECS Test Process

The ECS Test Process is an interconnected activity flow that incorporates Government and Contractor organizations, different venues and defined interdependencies. The process is described in the following paragraphs.

Historically, the Development organization understands a given software release's functionality, and its "look and feel." The Test Organization is familiar with system level requirements and acceptance criteria, as well as the operational usage of the software. In order to create some "synergism", test resources will become more involved with development earlier in the Release lifecycle. In this way, test resources can become more familiar with a given release much earlier, while Development can gain insight concerning the needs of formal testing. As part of the Release lifecycle, Development will develop integration test scenarios consistent with system level capabilities. Test engineers can then support integration of the software supporting these scenarios, but can also begin initial development of SVAT Test Procedures.

At the completion of each Turnover integration in the EDF, an internal Test Readiness Review (TRR) will be held. There will be two TRRs, one for each Turnover. This milestone represents the formal turnover of the software release to the SVAT Organization. This gate will be strictly monitored to ensure that all integration has been successfully completed, all necessary documentation or installation procedures needed in the VATC are available and approved, required test data and test configurations are available, and any other important information is communicated to the SVAT Organization prior to the start of formal testing.

Test folders are created for each acceptance test procedure and maintained throughout the remaining Release 5B test program. Each test activity is recorded on Test Execution Forms and filed in their individual test folders. During the test process, discrepancies are noted on the Test Execution Form. Discrepancies are then recorded on NCRs, rated by the test engineer according to severity, and filed in DDTS. Test folders are returned to a secure location, under configuration control, after completion of each test session. Each folder may be subjected to a test folder audit to ensure folder completeness and accuracy. Test folder audits are conducted routinely by the ECS Quality Office in accordance with ECS Project Instruction QO-1-017. After the results are discussed with SVA personnel, the results of the audits are posted on the SVAT web page. If necessary, corrective actions are assigned and the folders are re-audited by ECS QO. The audits are designed to ensure compliance with test folder requirements as specified in TT-1-003-1 and to assist in the successful completion of the FCA.

As-executed procedures and workarounds are documented as a result of test dry runs and formal executions. These are recorded on the test execution sheets that are maintained in the test folder for each test procedure. Workarounds to circumvent system deficiencies found during these tests are recorded on the Test Execution Forms in the test folders of the test case that uncovered the deficiency. The workaround is also recorded on the NCR and recorded in DDTS as part of the NCR process.

The preparation of test results begins with the routine recording of test procedure execution results on the Test Execution Form maintained in the Test Folders. SVA test results are maintained from the working test level and passed upwards for their incorporation in the Test

Folders, DDTS and the Verification Database. Test results are recorded on the Test Execution Form and transcribed to the Criteria Log maintained by each tester. These results are then entered into the VDB using the PI (TT-1-001-3). This information and others will form the basis for the preparation of acceptance test results.

Whenever possible, the formal verification of all requirements will be accomplished locally in the VATC, or the EDF in the case of unit-level error testing. On rare occasions, due to the DAAC-specific nature of the acceptance criteria, it may be necessary to complete the Release 5B Test Program at a given DAAC as part of scheduled Operational Installation Check-out and Test (ICT) activities. These tests will be coordinated in advance with DAAC, ESDIS, and QA personnel to provide for the necessary formal witness and sign-off environment.

5.4 Release 5B Test Procedures

The test procedures listed below will be executed in the VATC to verify the criteria that have been incorporated in Release 5B. Appendix A contains a summary of the objective of each Test Case and the mapping to the criteria contained in the appropriate Ticket.

	Test Number - Procedure Title
1	5B09010 - Closest Granule Production Rule
2	5B09020 - Spatial Pad Production Rule
3	5B09030 - Orbit Process Run Time Parameters Production Rule
4	5B10020 - Persistent Queuing of Subscription Actions
5	5B10030 - VO to ECS Gateway (Integrated Browse)
6	5B08010 - Maintenance Tool Management (ASTER)
7	5B10040 - ASTER Gateway
8	5B08030 - SDSRV Queuing and Recovery
9	5B09050 - Ingest Cancel
10	5B09060 - Ingest Database Data type Verification
11	5B09070 - Ingest Auto-Suspend/Cancel/Resume
12	5B09040 - DPREP Processing for PM-1
13	5B10010 - LLBox & Oriented Polygon
14	5B12010 - ASTER On-Demand (ASTER L1B)
15	5B12020 - ASTER On-Demand Digital Elevation Model (DEM) Functionality
16	5B12030 - On-Demand ASTER Higher Level Products
17	5B10050 - Restrict Granule Access
18	5B08020 - User Profile Enhancements
19	5B08040 - Update ESDT
20	5B10060 - Landsat-7 Floating Scene Subsetting
21	5B08050 - Landsat-7 Error Handling
22	5B10070 - JAVA DAR Tool
23	5B12040 - ASTER Browse
24	5B08069 - Database Report Generation

25	**5B10090 - Registry Services**
26	**5B09080 - NCEP03 Data Ingest and Archive**

5.5 Release 5B Test Schedule

Primavera is the basic scheduling resource used by ECS in scheduling all test activities. All test activities are scheduled using Primavera. A Primavera schedule listing includes the Test case number, test case title, test site, and planned date for each test to be executed for Release 5B Acceptance Testing. Appendix B of this document contains the Release 5B Acceptance Test Schedule listing from Primavera as of the date of print of this document. The Primavera schedule tool should be consulted to obtain up-to-date schedule information.

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Appendix A. Acceptance Test Summaries

A summary of each test and the mapping of Criteria to Test Cases is attached.

1. Closest Granule and Minimum/Maximum Granule Production Rule

Test Procedure No.:	**5B09010**	
Title:	Closest Granule and Minimum/Maximum Granule Production Rule	
Objective:	Section 1: Closest Granule Production Rule: This section will demonstrate the Closest Granule Production Rule. This Production Rule will allow a PGE to use the input granule closest to the Data Processing Request time in the specified direction. A PGE using the Closest Granule Production Rule is registered during SSIT. The Production Request Editor will search DSS forward or backward in time until it finds the closest granule. This test will generate production requests that require a forward search and a backward search. For example, if a PGE has defined the Closest Granule Production Rule for a (-) 6 hour period of query (with maximum number of retries set to 2), then the Production Request Editor will query for the production request time of the data processing request. If no match is found then the Production Request Editor will begin to query for 6 hours before the start time of the data processing request. If no match is found on the first 6 hour query, the Production Request Editor will try again. If no match is found on the second try then the Production Request will fail. If a match is found the Production Request will be generated. If more than one granule is found during the query, the granule with the latest insert time or collection time will be used. This test will consist of 5 scenarios: Scenario 1 will use the closest granule before the data processing request time. Scenario 1a will use the closest granule found during the first query interval. Scenario 1b will use the closest granule found during the last query interval. Scenario 1c will use the closest granule found in an intermediate interval. Scenario 1d will use a granule coincident to the data processing request time. Scenario 2 will use the closest granule following the data processing request time. Scenario 2a will use the closest granule found during the first query interval. Scenario 2b will use the closest granule found during the last query interval. Scenario 2c will use the closest granule found in an intermediate interval. Scenario 2d will use a granule coincident to the data processing request time. Scenario 3 will execute a PGE that applies the Closest Granule Production Rule to 2 different input data types. The first input data type will use the closest granule prior to the data processing request time. The second input data type will use the closest granule after the data processing request time. Scenario 4 will demonstrate that the query cycle does not go past the present time. An attempt will be made to generate Production Requests for a PGE requiring several closest granules after the data processing request time but where the combination of the query repeat value and/ the query interval go beyond the present time. Scenario 5 will demonstrate that when no granules exists within the specified query period the production request will fail. It will also demonstrate that when no granules are found within the maximum number of queries the production request will fail. Section 2: Closest Granule and Minimum/Maximum Granule Production Rule: This section will demonstrate the combination of the Closest Granule Production Rule and	

Minimum/Maximum Number of Granules Production Rule. The Closest Granule Production Rule will allow a PGE to use the input granule closest to the Data Processing Request time in the specified direction. When a PGE using the Closest Granule Production Rule is registered during SSIT. The Production Request Editor will search DSS forward or backward in time until it finds the closest granule. This test will generate production requests that require a forward search and a backward search. For example, if a PGE has defined the Closest Granule Production Rule for a (-) 6 hour period of query (with maximum number of retries set to 2), then the Production Request Editor will query for the production request time of the data processing request. If no match is found then the Production Request Editor will begin to query for 6 hours before the start time of the data processing request. If no match is found on the first 6 hour query, the Production Request Editor will try again. If no match is found on the second try then the Production Request will fail; if a match is found the Production Request will be generated. If more than one granule is found during the query, the granule with the latest insert time or collection time will be used. The Minimum/Maximum Number of Granules Production Rule allows a PGE to specify a range of possible granules for a given input or output. For inputs the PGE would specify the minimum number of granules that it needs for full data coverage and the maximum number of granules to search for. For outputs the PGE would specify the minimum and maximum number of outputs that it expects to produce.

This test will execute the following scenarios:

Scenario 1: A PGE is registered that uses both the Closest Granule Production Rule and the Minimum/Maximum Number of Granules Production Rule. The PGE will require a minimum of 3 of the closest granules prior to the data processing request time where the granules are located within the first query interval.

Scenario 2: A PGE is registered that uses both the Closest Granule Production Rule and the Minimum/Maximum Number of Granules Production Rule. The PGE will require a minimum of 3 of the closest granules prior to the data processing request time where the granules are located within the last query interval.

Scenario 3: A PGE is registered that uses both the Closest Granule Production Rule and the Minimum/Maximum Number of Granules Production Rule. The PGE will require a minimum of 3 of the closest granules prior to the data processing request time where the granules are located arbitrarily among the intervals.

Scenario 4: A PGE is registered that uses both the Closest Granule Production Rule and the Minimum/Maximum Number of Granules Production Rule. The PGE will require a minimum of 3 of the closest granules after the data processing request time where the granules are located within the first query interval.

Scenario 5: A PGE is registered that uses both the Closest Granule Production Rule and the Minimum/Maximum Number of Granules Production Rule. The PGE will require a minimum of 3 of the closest granules after the data processing request time where the granules are located within the last query interval.

Scenario 6: A PGE is registered that uses both the Closest Granule Production Rule and the Minimum/Maximum Number of Granules Production Rule. The PGE will require a minimum of 3 of the closest granules after the data processing request time where the granules are located arbitrarily among the intervals.

Scenario 7:Verify that if the closest granules production rule is used in conjunction with the min/max granules production rule and less than the minimum number of granules are found for the specified query period and maximum queries values, then the DPR does fail.

Scenario 8:Verify that if the closest granules production rule is used in conjunction with the min/max granules production rule and more than the maximum number of granules are found for the specified query period and maximum queries values, then the DPR does fail.

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RH_5B_03	10	Demonstrate the ability to correctly perform the SSIT activities to register a PGE that uses the closest granule production rule.	FC	1379
RH_5B_03	20	Demonstrate the ability to correctly plan and execute a PGE that requires a 'closest granules' prior to the DPR processing time. Exercise the following cases: the granule is (a) found within the first query interval (b) found within the last query interval (c) found in an intermediate interval (d) located coincident to the DPR period.	FC	1380
RH_5B_03	30	Demonstrate the ability to correctly plan and execute a PGE that requires a 'closest granules' following the DPR processing time. Exercise the following cases: the granule is (a) found within the first query interval (b) found within the last query interval (c) found in an intermediate interval (d) located coincident to the DPR period.	FC	1381
RH_5B_03	40	Demonstrate the ability to correctly plan and execute a PGE that requires both the closest granule production rule and the min/max granules production rule. Exercise the case for a minimum of 3-4 'closest granules' prior to the DPR processing time. Exercise the following cases: the granules are (a) all found within the first query interval (b) all found within the last query interval (c) found distributed arbitrarily among the intervals. Exercise the same case but in the post-DPR processing time period.	FC	1382
RH_5B_03	50	Demonstrate the ability to correctly plan and execute a PGE that requires 'closest granules' both prior to and after the DPR processing time (for separate input data types).	FC	1383
RH_5B_03	60	Demonstrate the ability to correctly plan and execute a PGE that requires one or more 'closest granules' after the DPR processing time but where the combination of query repeat value and query interval may go beyond the	FC	1384

		present time. Verify that the query cycle will not go beyond the present time.		
RH_5B_03	70	Verify that if no granules are found for the specified query period and maximum queries values that the DPR does fail.	EC	1385
RH_5B_03	80	Verify that if the closest granules production rule is used in conjunction with the min/max granules production rule and less than the minimum or more than the maxiumum number of granules are found for the specified query period and maximum queries values that the DPR does fail.	EC	1386
Test Input:	ASTER Level 1 Data Sets, ASTER Synthetic PGEs			
Test Output:	ASTER Higher Level Products			
Test Configuration:	t1pls02, t1pls01, t1sps02, t1spg01, t1acs02, t1drg01, t1ais01, t1ins02, t1ins01 PLANG CI, PRONG CI, SDSRV, ADSRV, SUBSRV			

2. Spatial Pad Production Rule

TEST Procedure No.:	5B09020	
Title:	Spatial Pad Production Rule	
Objective:	The Spatial Pad Production Rule is an addition to the Spatial Query Production Rule. The Spatial Query Production Rule allows a PGE to select an input or inputs based on the spatial coverage of another input (called the Key Input). The Production Request Editor queries the Science Data Server for the spatial coverage of the Key Input and then uses it in acquiring any subsequent inputs that the PGE has requested that have the same spatial coverage. The Spatial Pad Production Rule allows a pad to be added to the spatial constraints of the Key Input. The amount of pad specified during SSIT is added to all sides of the Key Input's spatial shape. Any granules overlapping the expanded shape are retrieved. The spatial padding area is limited to 1000 KM which includes the original size of the polygon + the spatial pad. If no spatial pad is assigned during SSIT or the spatial pad is set to zero then a normal spatial query is used. The test will consist of 4 scenarios. Scenario 1 will demonstrate the ability to register a PGE that uses the Spatial Pad Production Rule. This scenario will also demonstrate the ability to find inputs that having overlapping spatial coordinates. Two versions of a PGE will be registered. The first PGE sets the spatial pad to zero. The second PGE sets the spatial pad to a value greater than 0 Km. The two pges will have the same data processing request time. No production requests will be generated for the first PGE because no input granules overlap the key input granule without the spatial pad. The production request will be generated for the second pge because the spatial coordinates will overlap the key input because the key input has been padded by a specified value. Scenario 2 will use two PGEs. The first PGE will use the temporal production rule. The second PGE will use the spatial pad production rule. The data processing request times are the same for both PGEs. The production request will be generated for the temporal based PGE, but will fail for the spatial pad PGE because the spatial coordinates of the input granule do not fall within the spatial constraints of the key input. Scenario 3 will attempt to generate Production Requests for a PGE where the spatial pad subtends the maximum distance of 1000 KM. Scenario 4 will attempt to register a PGE whose ODL file has a negative spatial pad value.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RH_5B_04	10	Demonstrate the ability to correctly perform the SSIT activities to register a PGE that uses the Spatial Pad production rule.	FC	1416

RH_5B_04	20	Demonstrate the spatial pad granule selection capability by correctly planning and executing a PGE where ECS/PLS selects a granule for input to processing based upon a specifying spatial region. The specifying spatial region is defined by the spatial extent of a primary input granule plus a spatial pad value (in KM) that is used to expand the primary input granule spatial region. Selected granules must fall within or overlap the specifying spatial region.	FC	1417
RH_5B_04	30	Demostrate for the spatial pad production rule that granules that otherwise might satisfy the query but fall outside the region or overlap the boundary are rejected.	FC	1418
RH_5B_04	40	Demonstrate the spatial pad granule selection capability where selected granule share one or more boundaries with the specifying spatial region while still being completely contained within the specifying spatial region.	FC	1419
RH_5B_04	50	Demonstrate the ability of SSIT components to limit the spatial pad factor to less than 1000 KM for PGEs using the spatial pad production rule.	FC	1420
RH_5B_04	60	Demonstrate the spatial pad granule selection capability where the spatial pad value is 0 KM.	FC	1421
RH_5B_04	70	Demonstrate that the following errors are detected during the PGE registration processes: a. A negative value spatial pad factor is input b. a spatial pad value greater than 1000 KM	EC	1422
Test Input:	ASTER L1 Data Sets, Synthetic ASTER PGEs			
Test Output:	ASTER Higher Level Products			
Test Configuration:	t1pls02, t1pls01, t1sps02, t1ais03, t1spg01,t1acs03, t1drg01 PRONG CI, PLANG CI, SDSRV, ADSRV, SUBMGR, SUBSRV			

3. Orbit Processing Runtime Parameters Production Rule

TEST Procedure No.:	5B09030	
Title:	Orbit Processing Runtime Parameters Production Rule	
Objective:	The Orbital Processing Production rule uses the orbit of the PM-1 spacecraft to determine the time period for the inputs and outputs of the PGE. PGEs will be registered in the PDPS database as Orbit scheduled. PDPS will determine the orbit of the satellite from information provided during SSIT. This information gives the start time and length of the orbit. The start and end times of the PGE are then extrapolated or interpolated from the orbit information and stored in the PDPS database. Data is searched for based on those start and stop times and is staged before the PGE is executed. The following runtime parameters can be set in the PGE PCF file during preprocessing: Orbit Number, Orbital Path Number, Orbit Number within the Day and Granule Number within the Orbit. The Orbit Number is the number of the orbit (starting from zero) and continually increasing. The Orbital Path Number is the number of the path, which maps to the Orbit Number. The Orbit Number within the Day is the number of the orbit within the given day. This includes any orbit, which starts within the given day. The Granule Number within the Orbit is the number of the granule within a given orbit. This includes any granule, which starts within the given orbit. This test will register four MISR PGEs that use the Orbit Processing Production Rule. The first PGE will use a two-hour input whose start time falls within the first whole orbit in the day. The second PGE will take in a two-hour input whose start time equals the start of the first whole orbit of the day. The third PGE will take in a two-hour input whose start time equals the last orbit of the day. The fourth PGE will take in a two-hour input whose start time is equal to the start time of the first orbit of the day, which starts at 0Z of that day. For each PGE several DPRs will be generated and run in Autosys. The PCF files for the PGEs will then be examined to verify that the following runtime parameters were accurately set: Orbit Number, Orbital Path Number, Orbit Number within the Day and Granule Number within the Orbit.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RH_5B_05	10	Demonstrate the ability to correctly perform the SSIT activities to register a PGE that uses the Orbit Processing Runtime Parameters Production Rules.	FC	1569
RH_5B_05	20	Demonstrate that the PRONG CI can compute from the start time of an input granule and PM-1 orbit model information the number of the orbit within the day corresponding to the data start time, where the first whole orbit in the day is identified as number 1. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1570

RH_5B_05	30	Demonstrate the ability to compute the orbit number within the day for granules with start times that are equal to the start time of the first whole orbit of the day. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1571
RH_5B_05	40	Demonstrate the ability to compute the orbit number within the day for granules with start times that are equal to the start time of the last orbit to start within the day. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1572
RH_5B_05	50	Demonstrate the ability to compute the orbit number within the day for granules with start times that are equal to the start time of the first orbit of the day which starts at 0Z of that day. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1573
RH_5B_05	60	Demonstrate that the PRONG CI can compute from the start time of an input granule and PM-1 orbit model information the number of the granule within the orbit corresponding to the data start time. The first granule of an orbit may begin at any time, T, Such that: T0 <= T Where T0 is the orbit start time. All granules are six minutes in duration or less. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1574
RH_5B_05	70	Demonstrate that the PRONG CI can compute the granule number within the orbit where the granule start time coincides with the orbit start time. The granule number should be ‘1’. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1575

RH_5B_05	80	Demonstrate that the PRONG CI can compute the granule number within the orbit where the granule start time coincides with the orbit start time plus six minutes. The granule number should be '2'. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1576
RH_5B_05	90	Demonstrate that the PRONG CI can compute the year corresponding to the start time of a data collection. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1577
RH_5B_05	100	Demonstrate that the PRONG CI can compute the month within the year corresponding to the start time of a data collection. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1578
RH_5B_05	110	Demonstrate that the PRONG CI can compute the day of the month corresponding to the start time of a data collection. Show that this value is provided to the associated PGE as a runtime parameter.	FC	1579
Test Input:	MISR L0 Data Sets, Synthetic MISR PGEs			
Test Output:	MISR PGE PCF			
Test Configuration:	t1pls02, t1sps02, t1spg01, t1ais01, t1acs02, t1drg01, t1ins01, t1ins02 PLS, DPS, DSS, IOS, IDG			

4. Persistent Queuing of Subscription Actions

Test Procedure No.:	**5B10020**	
Title:	Persistent Queuing of Subscription Actions	
Objective:	The purpose of this test is to verify Persistent Queuing of Subscription Actions when a trigger request is issued by Science Data Server (SDSRV). A number of granules are inserted in rapid succession to trigger a large number of acquire actions for several events. Verification is made that the SBSRV starts queuing up event notices and their actions when there is a termination and warm restart of the SDSRV, and a termination and warm restart of the SBSRV before all actions are complete. Verification is also made that none of the triggered acquire actions are lost and that none of them are submitted more than once.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_02	10	Insert a number of granules in rapid succession to trigger a very large number of acquire actions for several events. Verify that the SDSRV/SBSRV event notification interface is no longer synchronous and that the SBSRV indeed starts queuing up event notices and their actions.	FC	1371
RM_5B_02	20	Insert a number of granules in rapid succession to trigger a very large number of acquire actions for several events. The number of granules inserted must be large enough to cause subscription actions to be queued. The total number of subscription actions must be large enough to allow testers to exercise an SDSRV fault before the subscription actions are worked off. Warm restart the SDSRV before all actions are complete. Verify that none of the triggered acquire actions are lost and that none of them are submitted more than once.	FC	1372

RM_5B_02	30	Insert a number of granules in rapid succession to trigger a very large number of acquire actions for several events. The number of granules inserted must be large enough to cause subscription actions to be queued. The total number of subscription actions must be large enough to allow testers to exercise an SDSRV fault before the subscription actions are worked off. Terminate SDSRV execution before all actions are complete. Restart the SDSRV after the expiration of the SBSRV configured retry time period for acquire actions. Verify that none of the triggered acquire actions are lost and that none of them are submitted more than once.	FC	1373
RM_5B_02	40	Insert a number of granules in rapid succession to trigger a very large number of acquire actions for several events. The number of granules inserted must be large enough to cause subscription actions to be queued. The total number of subscription actions must be large enough to allow testers to exercise an SBSRV fault before the subscription actions are worked off. Warm restart the SBSRV before all actions are complete. Verify that none of the triggered acquire actions are lost and that none of them are submitted more than once.	FC	1374
RM_5B_02	50	Verify that an operator can list the actions and trigger information in the warm restart action table.	FC	1375
RM_5B_02	60	Verify that an operator can delete an action in the warm restart action table.	FC	1376
RM_5B_02	70	Verify that an operator can update an action in the warm restart action table.	FC	1377
RM_5B_02	80	Verify that the SBSRV retains trigger request information for the configured amount of time in the trigger information table; and that the information is deleted thereafter.	FC	1378

Test Input:	• Send trigger request from SDSRV • Subscription from Subscription Manager • Subscription with e-mail notification • Subscription with qualifiers • Subscription with acquired actions • AST_L1BT
Test Output:	• E-mail notification message • Subscription Manager receives notifications • SBSRV logs (ALOG & Debug log) • SDSRV logs (ALOG & Debug log) • SDSRV receives Acquire request from subscription server • Content of 3 internal database tables (EcSbSubWorkOff, EcSbActionWorkOff, and EcSbTriggerRequest)
Test Configuration:	• t1ins02, t1dms02, t1acs03 • EcSbSubServer, EcDsScienceDataServer, SQL servers

5. V0-ECS Gateway (Integrated Browse)

Test Procedure No.:	**5B10030**	
Title:	V0-ECS Gateway (Integrated Browse)	
Objective:	This test will verify the ability for users to perform inventory searches for science granules and then request integrated browse from the selected granules using the EDG client. In addition, this test will verify the ability to submit searches that include QA Attributes, other Core Metadata Attributes, and Product-Specific Attributes of type integer, string, and floating point as search criteria; and inspect that the results returned from the searches are correct. This test will also verify the ability to perform searches by granule ID and that the correct granules returned; and to order the granule for FTPPush.. Note: Landsat granules and metadata cannot be used as test data, as these are covered by earlier releases. (RM_5B_08)	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_06	10	Using the EDG client, perform a search for science granules that are associated with a browse image (BROWSE ONLY). Request integrated browse for selected granules. Verify that only granules with BROWSE are displayed in the search result and that the browse granules are delivered correctly.	FC	1423
RM_5B_08	10	Use the EDG client to submit searches that include QA Attributes and other Core Metadata Attributes, as well as Product-Specific Attributes as part of the search criterion. The searches must observe the limits on the number of additional attributes that can be included in a search and that is imposed by the EDG client. Verify that: a. QA Attributes can be included in the search criteria. b. Other Core Metadata (beyond those covered by the basic V0 protocol) can be included in the search criteria. c. PSA of type integer, string, and floating point can be included in the search criteria. d. Verify that the searches return the correct results. e. Verify that search	FC	1491

		conditions which do not match any granules in the inventory result in an empty result set.		
RM_5B_08	20	Use the EDG client to inspect the results returned by the searches. Verify that: a. QA Attributes can be inspected. b. Other core metadata attributes can be inspected. c. PSA of type integer, string, and floating point can be inspected	FC	1492
RM_5B_08	30	Note one of the granule identifiers that are returned by the searches. Use the granule identifier in a search by granule ID. Verify that the correct granule is returned.	FC	1493
RM_5B_08	40	Order the granule for FTPPush.	FC	1494
Test Input:	> User Information > Search Type > Geographic Region > Data Set > Data Center > Other Search Criteria			
Test Output:	>Data granules with integrated browse > Pictures display of granules selected > Data granules match search conditions.			
Test Configuration:	➢ t1ins01, t1acs03, t1wkg01, t1dps01, t1drg01, t1acg01, t1mss06 ➢ Sybase, Netscape, V0Gateway, SDSRV, HdfEos, DDIST, STGMT, Archive, MSS, etc.			

6. Maintenance Tool Management (ASTER)

Test Procedure No.:	5B08010	
Title:	Maintenance Tool Management (ASTER)	
Objective:	This test will provide the ability for ECS to perform two-way Interoperability with ASTER GDS for ASTER L1B processing Requests for valids Import, Export and Attribute Mapping capability. From the EDC site, the user will define valids mapping between ECS and ASTER in both directions and then do the same at the remote site(non-EDC). The remote site will then export the mapped collections into a transfer file for use by the ASTGW. The user from the EDC site will then import the transferred file and then create a valids exchange file for the ASTGW GDS. The User will perform a valids file exchange via e-mail in both directions. At the EDC site, the user will import a GDS valids file into the data dictionary for use by the ASTGW.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_07	10	Exercise the V0 export capability in the DDICT Maintenance tool for ESDT that include PSA. Verify (through manual inspection) that it correctly exports the list of core metadata attributes and the PSA defined for the selected ESDT, and that an extended attribute definitions file was created.	FC	1539
RM_5B_07	20	Use the DDICT Maintenance Tool at the "EDC" site to define valids mapping between ECS and ASTER (both directions).	FC	1540
RM_5B_07	30	Use the DDICT Maintenance Tool at the remote ("non-EDC") site to define valids mappping between ECS and ASTER (both directions) compatible with those defined at the "EDC site".	FC	1541
RM_5B_07	40	Use the DDICT Maintenance Tool at the remote ("non-EDC") site to export the mapped collections into a transfer file for use by the ASTGW. Verify the correctness of the contents of the file through manual inspection.	FC	1542

RM_5B_07	50	Use the DDICT Maintenance Tool at the EDC site to import the transfer file. Using the DDICT Maintenance Tool, verify that the collections have been imported correctly, that any new mappings were correctly imported, and that pre-existing mappings were not altered.	FC	1543
RM_5B_07	60	Use the DDICT Maintenance Tool at the "EDC site" to create a valids exchange file for the ASTER GDS. Verify the correctness of the file.	FC	1544
RM_5B_07	70	GDS INTERFACE TEST. Perform a valids file exchange via e-mail in both directions, and verify the MSS e-mail message header handling.	FC	1545
RM_5B_07	80	GDS INTERFACE TEST. Use the DDICT Maintenance Tool at the "EDC site" to import a GDS valids file into the data dictionary for use by the ASTGW. Use the DDICT Maintenance Tool to verify the correctness of the import by manual inspection of selected entries. Note: correctness of the import will be verified by exercising the valids and their mapping in directory and inventory searches handled by the ASTGW in testsx performed in tickets RM_5B_03 and RM_5B_09.	FC	1546

Test Input:	➢ Collections suitable for V0 and ASTER GDS export. (Extended Core metadata attributes and PSA) ➢ Exported valids File
Test Output:	➢ Exported valids File ➢ Attribute Mapped ➢ Email Message
Test Configuration:	➢ T1ins01, e0ins02, Maintenance Tool at Remote and at EDC. ➢ ASTGW, DDICT Server, Sybase, V0 IMS, Email

7. ASTER Gateway

Test Procedure No.:	5B10040	
Title:	ASTER Gateway	
Objective:	This test will verify the capabilities to perform Inventory searches, product requests, price estimates, product request status, integrated browse, directory searches, logging and session timeout. This test will make use of the GDS simulator to perform directory and inventory searches to the ASTGW and return collections archived at different ECS sites, including EDC. The search request must include one Landsat 7 scene. ASTER higher level product and collections that are archived at two different sites. An integrated browse and price estimate will be requested for L7 scenes. Product Order will be issued for one Landsat 7 scene via ftp pull, and three Landsat 7 scenes via 8 mm tape. Another product request will include an FtpPull for a product stored at the site remote to the ASTGW; another will be Landsat 7 scenes (stored at the local DAAC) as well as MODIS products stored at the remote DAAC. The MODIS order should include an ftp-pull line item as well as an 8mm tape line item. **Assumptions:** This test requires a GDS simulator that is capable of sending GDS ODL requests to the ASTGW and receiving ODL responses. This test also requires two DAAC sites. One is assumed to be EDC, i.e., the DAAC where the ASTGW runs. The criteria refer to it as the "local site/DAAC". The other is assumed to be a remote DAAC (e.g., GSFC). The criteria refer to it as the "remote site/DAAC". The tests may use, for example, VATC and GSFC. The data server at the local DAAC must contain Landsat 7 browse images, subintervals, scenes; as well as ASTER routine products, for both inventory searching and ordering. The data server at the remote DAAC must contain MODIS higher level products for both inventory searching and ordering. User profiles with different order priorities must have been set up for use in ordering.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_09	10	Using a GDS simulator, send a directory search to the ASTGW. The directory search must be phrased such that it returns collections archived at different ECS sites, including EDC (Landsat scenes).	FC	1547

RM_5B_09	20	Using a GDS simulator, send inventory searches to the ASTGW. The inventory searches must meet the following characteristics: • One search shall be for Landsat 7 scenes • One search shall be for routine ASTER higher level products • One search shall span collections that are being archived at two different sites.	FC	1548
RM_5B_09	30	Using a GDS simulator, send an inventory search to the ASTGW that produces a result set of > 100 granules to observe result set chunking. Verify that the ASTGW returns the result set correctly and in chunks, and that a Quit request is honored.	FC	1549
RM_5B_09	40	Using a GDS simulator, issue integrated browse requests and verify their correct receipt. The browse requests must meet the following characteristics: • One request must be for a Landsat 7 browse granule • One request must be for a browse granule stored at a site that is remote to the ASTGW site	FC	1550
RM_5B_09	50	Using the GDS simulator, obtain a price estimate for: • Non-Landsat data (price must be zero) • one Landsat 7 scene • three Landsat 7 scenes and • ten Landsat 7 scenes.	FC	1551

RM_5B_09	60	Using the GDS simulator, issue a product order for one Landsat 7 scene via ftp pull, and three Landsat 7 scenes via 8 mm tape. Verify the following: • The orders are passed correctly via the DORRAN interface to the local V0 Gateway for submission to the data server. • The orders are distributed with the priority specified in the user profile used. • The Distribution Notices are correctly sent. • The request states are correctly updated and observable via the local DAAC's MSS GUI.	FC	1552
RM_5B_09	70	Using the GDS simulator, issue an 8mm tapeproduct order for a product stored at the site remote to the ASTGW. As the order is being processed, verify the following: • The request and order states are correctly updated and observable via the remote DAAC's MSS GUI • The request states are correctly updated at the local site and observable via the local DAAC's MSS GUI.	FC	1553

RM_5B_09	80	Using the GDS simulator, issue a product order that includes Landsat 7 scenes (stored at the local DAAC) as well as MODIS products stored at the remote DAAC. The MODIS order should include an ftp-pull line item as well as an 8mm tape line item. As the order is being processed, verify that • There is only one order each generated at the remote DAAC and the local DAAC. • The remote DAAC's request and order states are correctly updated and observable via the remote DAAC's MSS GUI. • The local order reflects both the local and remote requests. • The states of the local and remote requests and order are correctly updated at the local DAAC and are observable via the local DAAC's MSS GUI. • The order IDs and request IDs that have been assigned include the DAAC identifier to make them ECS-wide unique. • The Home DAAC has been correctly identified at both sites as being the local DAAC.	FC	1554
RM_5B_09	90	Use the GDS simulator to obtain the status of the order status at various points during the processing cycle and verify that the status is correctly translated and transmitted by the ASTGW to the GDS simulator.	FC	1555
RM_5B_09	100	Use the GDS simulator to submit a Product Cancel Request for a previously submitted order and verify that a failed status is returned.	FC	1556
RM_5B_09	110	Use the GDS simulator to submit a Product Update Information Request for a previously submitted order and verify that a Product Status Update Acknowledgment is returned.	FC	1557
RM_5B_09	120	Verify that the ASTGW logs start-up, shut-down, and other GDS-ECS gateway activities as specified in the L4 requirements.	FC	1558

RM_5B_09	130	Verify that the ASTGW logs failed and successful authentications, and uses the default authentication when no authenticator is provided in the request..	FC	1559
RM_5B_09	140	Using the GDS simulator, submit multiple requests concurrently. Verify that the ASTGW handles them correctly, and that log entries distinguish among the different requests.	FC	1560
RM_5B_09	150	Shutdown the remote DAAC's V0 Gateway. Using the GDS simulator, send a search, product order, and browse request for products at the remote DAAC. Verify that an appropriate failure status is returned by the ASTGW and that the request failures are logged by the ASTGW. Verify that the request state is correctly recorded and observable via the local DAAC's MSS GUI, and correctly returned when a status request is submitted from the GDS simulator.	EC	1561
RM_5B_09	160	With all components operating normally and using the GDS simulator, send a product order for a product at the remote DAAC. Shutdown the ASTGW after it submitted the product request to the remote DAAC, but before the remote DAAC's V0 Gateway returns the request acknowledgment. Verify that the order completes successfully and that the request state is correctly recorded and observable via the EDC MSS GUI.	EC	1562
RM_5B_09	170	Submit an inventory search from the GDS simulator to the ASTGW that includes MODIS collections at the remote DAAC. Shut down the GDS simulator before the search result is returned. Verify that the ASTGW correctly handles the fault.	EC	1563

RM_5B_09	180	Submit a search, browse request, and an order for local data from the GDS simulator to the ASTGW while the SDSRV is down. Verify that the ASTGW logs and returns an appropriate failure status after the configured retries fail, and recovers if the service is restored before then.	EC	1564
RM_5B_09	190	Submit an order from the GDS simulator to the ASTGW while the MSS user profile server is down. Verify that the ASTGW logs and returns an appropriate failure status after the configured retries fail, and recovers if the service is restored before then.	EC	1565
RM_5B_09	200	Submit an order from the GDS simulator to the ASTGW while the MSS order tracking server is down. Verify that the ASTGW logs and returns an appropriate failure status after the configured retries fail, and recovers the request if the service is restored before then.	EC	1566
RM_5B_09	210	Submit an order from the GDS simulator to the ASTGW while the Data Dictionary database is down. Verify that the ASTGW logs and returns an appropriate failure status after the configured retries fail, and recovers the request if the service is restored before then.	EC	1567
RM_5B_09	220	Submit a Landsat 7 order from the GDS simulator to the ASTGW while the LIMGR is down. Verify that the ASTGW logs and returns an appropriate failure status after the configured retries fail, and recovers the request if the service is restored before then.	EC	1568

Test Input:	➢ Geographical Map (global search) ➢ Data Set ➢ Data Center ➢ User Information
Test Output:	➢ Granules with Integrated browse. ➢ A picture display of granules selected. ➢ Price estimate ➢ Directory Data information ➢ Inventory Data information ➢ FTP Pull Data ➢ 8mm Pull data on tape ➢ email
Test Configuration:	➢ T1ins01, t1acs03, t1dps01, t1drg01, t1mss06, e0ins02 ➢ Sybase, Netscape, SDSRV, V0GATEWAY, STGMT, Archive, MSS ASTGW etc

8. SDSRV Queuing and Recovery

Test Procedure No.:	**5B08030**	

Title:	SDSRV Queuing and Recovery
Objective:	This test verifies Science Data Server (SDSRV) database persistence when multiple Asynchronous Acquire Requests are sent to SDSRV. First, the concurrent number of asynchronous acquire requests will be sent to exceed the configured limits as defined by the EcDsScienceDataServer.CFG file. Limits will be set for Landsat 7 scene requests (or heavy requests) as well as non-heavy requests (data that doesn't require subsetting, ie., does not use HDFEOS Servers). The SDSRV GUI will be used to show that heavy and non-heavy asynchronous acquires are executed within the defined limits and the requests' states are shown as "queued", "executing", or "done" as they move through the execution process. The SDSRV database will also be monitored to verify proper states of the requests. These states will be observed to verify that concurrent asynchronous requests stay within configured limits, concurrent active heavy asynchronous requests stay within configured limits, and that these limits are maintained as active requests complete and pending requests are started. Three synchronous acquire requests will also be sent from PDPS. The synchronous requests will execute without regard to the configured limits. The logs will also be checked to verify the requests were handled by SDSRV as expected. In addition, the SDSRV and HDFEOS Servers will be terminated in the middle of processing acquire requests. In one case, the SDSRV is warm started and any active or pending requests in the database which were not completed are restarted in the priority order in which they were received and they complete normally. No requests should be lost. When the SDSRV is restarted, processing does not start right away but rather the process waits until a certain time has expired (based upon the value of the SDSRV_STARTING_SLEEP_TIME parameter in the EcDsScienceDataServer.CFG file). Every so often (based on the value of the SDSRV_PAUSE_INT_SESSION parameter in the EcDsScienceDataServer.CFG file), the database is checked to see if new requests have arrived. If new requests arrive, the processing is started without waiting for the SDSRV_STARTING_SLEEP_TIME value to be reached. Any requests pending restart should execute before this new data (if the configured limits haven't been met), in priority and in the order in which they were received. The SDSRV GUI correctly displays the state of the requests as pending in the restart queue or new submissions. In another case, SDSRV is cold started and all acquire requests and pending event triggers are purged from the database and not processed. The Distribution Server (DDIST) and the Subscription Server (SBSRV) will be terminated during parts of this test to force requests to stay in the SDSRV. They will be restarted to show requests complete successfully, after the appropriate verifications have been performed. The DORRAN interface will not be exercised during this test when performing Landsat-7 acquires. Users with varying priorities in their user profiles will be used for the various asynchronous acquire requests, as well as subscription acquires. This test case assumes Landsat-7 and non-Landsat-7 data already resides in the inventory.

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key

RM_5B_12	10	Submit a sufficiently large number of data orders for Landsat scenes and MODIS granules to cause requests to be queued. Concurrently, cause data processing jobs to request the staging of at least three MODIS granules. Verify the following: • The SDSRV GUI displays the correct state of asynchronous requests, whether they are pending execution or active. • Throughout the test, no more Landsat 7 scene requests are concurrently active as has been configured in the SDSRV for heavy requests • Throughout the test, no more Landsat 7 scene requests and MODIS requests are concurrently active as has been configured in the SDSRV for the total number of asynchronous acquire requests • Once the maximum configured numbers are reached, new requests will be started if and only if an executing request (of the appropriate type – heavy or not heavy) completes... • The synchronous acquire requests submitted by PDPS are not counted against the heavy and asynchronous request limits.	FC	1478

RM_5B_12	20	Induce a fault that terminates the SDSRV server while asynchronous acquire requests of both types (i.e., Landsat 7 and non Landsat 7) are in progress. Terminate the HDFEOS server, warm restart the SDSRV and restart the HDFEOS servers. Submit at least one data order for Landsat scenes and one for non Landsat 7 granules. Verify the following: • The SDSRV GUI displays the correct state of the asynchronous requests, whether they have been just submitted or are pending restart in the warm start queue. • No asynchronous acquire request is lost • Those asynchronous acquire requests that were in progress at the time of SDSRV termination are restarted and complete normally in priority FIFO order. • Re-submissions of staging requests by processing jobs are recognized as re-submissions and processed accordingly	FC	1479
RM_5B_12	30	Induce a fault that terminates the SDSRV server while asynchronous acquire requests of both types (i.e., Landsat 7 and non Landsat 7) are in progress. Terminate the HDFEOS server, cold restart the SDSRV and re-start the HDFEOS servers. Verify the following: • The request queue has been cleared out and the SDSRV GUI shows no pending or executing acquire requests. • Asynchronous acquire requests of both types submitted thereafter are processed normally.	FC	1480

Test Input:	• Search Requests • Acquire Requests from users (via the V0 Web Client) and from PDPS • Insert Requests from Ingest • Requests to stop/start the servers
Test Output:	• The states of Acquire Requests are displayed on DDIST and the SDSRV GUIs. • The states of Ingest Requests are displayed on the Ingest GUIs Monitor and Control Screen • Data is successfully ingested and orders are successfully completed. • Search results for granules to be used in acquires are successfully returned
Test Configuration:	• SDSRV, SBSRV, DMS, CLS, INS, DDIST, STMGT • t1acs03, t1dps01, t1drg01, t1acg01, t1icg01, t1ins01, t1ins02 • V0 Web Client

9. Ingest Cancel

Test Procedure No.:	5B09050	
Title:	Ingest Cancel	
Objective:	This test case demonstrates the Ingest Cancel function. An operator can manually cancel an ongoing ingest request (single or multiple granules) or a single granule of a multiple granule ingest request. The operator cancels the ingest request or a single granule of a multiple granule ingest request by using the Cancel radio button on the Monitor/Control display of the Ingest GUI. When an ingest request or a single granule of a multiple granule ingest request is canceled the appropriate PAN message is sent to the data provider. This test will cancel an ingest request and a single granule of a multiple ingest request while the data is being transferred and also when the data is being preprocessed. DAO (DAS) will be used for this test along with DAS late look data.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
SM_5B_01	30	Ingest request cancel of an active request • Initiate an Insert of a DAS data product • Cancel the request while it is still active.	FC	
SM_5B_01	40	Ingest request cancel of an active granule insert • Initiate a multi-granule insert (using a single PDR) of several DAS data products • While the request is still active, cancel a single granule from the request.	FC	

Test Input:	• 1 PDR for ingest containing 1 granule of DLLAPMOM data • 1 PDR for ingest containing a granule of DLLAPCLD data and a granule of DLLAPCHM data • 1 PDR for ingest containing a granule of DLLAPMST data and a granule of DLLAPTMP data
Test Output:	• Monitor/Control Display • PAN Messages • Archive Directory Listings • SDSRV Database Queries
Test Configuration:	• 5B baselined code • Servers (EcInGUI, EcInPolling, EcInReqMgr, EcInGran, EcDsStStagingDiskServer, EcDsStIngestFtpServer, EcDsScienceDataServer, EcDsStArchiveServer, EcIoAdServer) • Hardware (t1icg01, t1acg01, t1drg01, t1acs02, t1acs03, t1ins02)

10. Ingest Database Data type Verification

Test Procedure No.:	**5B09060**	
Title:	Ingest Database Data type Verification	
Objective:	This test case shows that the Ingest database contains the necessary 5B data type information. The following database parameters will be checked: DataType, VersionID, FileTypeTemplateKey and SourceMCF. ISQL commands will be used to query the InDataTypeTemplate, InFileTypeTemplate and InSourceMCF tables of the Ingest Database. Database parameters will be compared with information from the appropriate ICD. It should be noted that this test case does not involve ingest of any data.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
SM_5B_01	10	Inspect the INS database to confirm that all the data types listed for 5B for the following interfaces have the correct entry information: a) DAS b) SIPS – CERES Appendix c) SIPS – MODAPPS Appendix d) SIPS – PM-1 Instrument Appendices e) SIPS – AMSR L1B (ADEOS) f) EDOS – PM-1 L0 For SIPS data types, compare SIPS ICD to check DataType, VersionID and FileTypeTemplateKey in InDataTypeTemplate table. FileTypeTemplateKey should be "SIPS" if provider is using InputPointer in metadata or "NON_STD_SIPS" if provider not using InputPointer. For EDOS L0, check DataType in InDataTypeTemplate table against EDOS ICD. For DAS, check information in each of the following tables: InDataTypeTemplate table – Check DataType against DAS ICD InFileTypeTemplate table – Check that FileTypeTemplateKey equals	FC	

		DataType in InDataTypeTemplate table InSourceMCF table – check SourceMCF equals DataType in InDataTypeTemplate table		
Test Input:	ISQL commands			
Test Output:	Ingest Database query results			
Test Configuration:	• 5B baselined code and 5B baselined Ingest Database • Sybase • Hardware (t1icg01)			

11. Ingest Auto-Suspend/Cancel/Resume

Test Procedure No.:	**5B09070**	
Title:	Ingest Auto-Suspend/Cancel/Resume	
Objective:	This test case demonstrates the Auto-Suspend function along with the manual Cancel and Resume functions for Ingest. These functions will be demonstrated for both single and multiple granule ingest requests. The test consists of Auto-Suspending a single granule or part of a multiple granule Ingest request and then canceling or resuming the request or part of the request. When Ingesting a single granule the Auto-Suspend gives a suspended granule state and a suspended request state. When Ingesting multiple granules and one or more of the granules are suspended, but not all, then the ones that are suspended have a suspended granule state and the request state is partially suspended. Ingest of a granule(s) will be automatically suspended if the configured number of STMGT_RETRY_ATTEMPTS or SDSRV_RETRY_ATTEMPTS has been attempted without success. For these suspended granule(s) the operator has two courses of action, to cancel ingest of the granule(s) or to resume ingest of the granule(s). The operator cancels or resumes ingest of the granule(s) by using the appropriate radio buttons (Cancel or Resume) on the Monitor/Control display of the Ingest GUI. When ingest of the granule(s) is(are) canceled or resumed the appropriate PAN message is sent to the dataprovider. CERES and MODAPS data will be used for this test.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
SM_5B_01	50	Ingest request cancel of a suspended request • Take Down Staging Disk Server • Insert a higher level CERES product through the SIPS interface– This will cause the request to “suspend”. • Cancel the suspended request	FC	
SM_5B_01	60	Ingest request resumption of a suspended • Take down the Staging Disk Server • Insert a higher level CERES product through the SIPS – This will cause the request to “suspend”. • Bring up the Staging Disk Server • Resume the request • Check for successful completion	FC	

SM_5B_01	70	Ingest request cancel of a partially suspended request • Insert several higher level MODAPS products through the SIPS interface using a single PDR. • After successful ingest/archive of some of the granules, take down the Staging Disk Server– This will cause the request to "partially suspend". • Cancel the partially suspended request	FC	
SM_5B_01	80	Ingest request resumption of a partially suspended request • Insert several higher level MODAPS products through the SIPS interface using a single PDR. • After successful ingest/archive of some of the granules, take down the Staging Disk Server– This will cause the request to "partially suspend". • Bring up the Staging Disk Server • Resume the partially suspended request • Check for successful completion	FC	

Test Input:	• For Ingest 1 PDR containing 1 granule of MOD04_L2 • For Ingest 2 PDR's each containing 3 granules of MOD05_L2 and 3 granules of MOD10_L2 • PDRs containing single and multiple granules containing CERES data type
Test Output:	• Pan messages via E-mail • Monitor/Control Display • Archive Storage directory contents • SDSRV Inventory Database query results
Test Configuration:	• 5B baselined code • Servers (EcInPolling, EcInReqMgr, EcInGran, EcInGUI, EcDsStStagingDiskServer, EcDsStIngestFtpServer, EcDsStArchiveServer, EcDsScienceDataServer, EcIoAdServer) • Hardware (t1acg01, t1icg01, t1acs02, t1acs03, t1drg01, t1dps04, t1ins01, t1ins02)

12. DPREP Processing for PM1

TEST Procedure No.:	5B09040	
Title:	DPREP Processing for PM-1	
Objective:	This test will demonstrate the ability to support orbit and attitude preprocessing for the PM-1 spacecraft. DPREP PGEs for PM-1 will be used to get the spacecraft position and orientation data into a form usable by the SDP Toolkit which is used by the PM-1 science processing software. The definitive orbit data is generated on the ground using TDRSS ranging data. The data will arrive 8 hours after 0Z. Since AIRS requires level 1 data to be processed within 3 hours of ground receipt, the DAAC will receive both a 1-day definitive orbit ephemeris and a 2-day predicted orbit ephemeris. The attitude will be transmitted to the ground within the Ground-Based Attitude Determination (GBAD) packets. This test will register PM-1 DPREP PGEs, create production requests and data processing requests; plan, schedule and activate production requests; process and archive products. The following scenarios will be executed: • Scenario 1: Run a DPREP data processing request job that processes FDS produced definitive orbit data and archives processed definitive orbit data. There will be no adjacent (before or after the data processing request time) FDS produced definitive orbit data in the archive • Scenario 2: Run a DPREP data processing request job that processes FDS-produced predictive orbit data and archives processed predictive orbit data. There will adjacent (before or after the data processing request time) predictive orbit data in the archive. • Scenario 3: Run a DPREP data processing request job that processes PM-1 spacecraft GBAD data and archives processed attitude data. • Scenario 4: A DPREP data processing request job will be run using FDS definitive orbit data that is not formatted in accordance with the ICD. • Scenario 5: A DPREP data processing request job will be run using GBAD data that is not formatted in accordance with the ICD. • Scenario 6: A DPREP data processing request job will be run using GBAD data with one or more missing GBAD packets from either the 959 channel, the 957 channel, or both. • Scenario 7: A DPREP data processing request job will be run using GBAD data with spikes or outliers in the input GBAD data stream for either the 959 channel, the 957 channel, or both.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RH_5B_06		Demonstrate the ability of a DPREP PGE to process FDS-produced definitive orbit data producing as a result DPREP processed definitive orbit data suitable for use by SDP toolkit. Verify that output data is produced in HDF-EOS format and in native format. Verify the insertion of these granules to the SDSRV with appropriate metadata.	FC	
RH_5B_06		Demonstrate the ability of a DPREP PGE to process FDS-produced predictive orbit data producing as a result DPREP processed predictive orbit data suitable for use by SDP toolkit. Verify that output data is produced in HDF-EOS format and in native format. Verify the insertion of these granules to the SDSRV with appropriate metadata.	FC	
RH_5B_06		Demonstrate the ability of a DPREP PGE to process the PM-1 spacecraft GBAD data for APID channels 959 and 957 (which have been EDOS processed to level 0 format) producing as a result DPREP processed attitude data suitable for use by SDP toolkit. Verify that output data is produced in HDF-EOS format and in native format. Verify the insertion of these granules to the SDSRV with appropriate metadata.	FC	
RH_5B_06		Demonstrate the ability of the DPREP PGE to identify the condition of the GNCC status word being set (for a minimum of 10 minutes of GBAD data). Verify that the DPREP PGE correctly identifies invalid attitude data via data quality flags for the corresponding data values in the output attitude data granules.	FC	

RH_5B_06		The nominal mode for running DPREP PGEs (orbit or GBAD processing) will assume the presence of appropriate orbit or attitude data both before and after the target processing data period. Demonstrate that the DPREP PGEs (for either orbit or GBAD processing) can be run with or without the presence of this adjacent data.	FC	
RH_5B_06		Demonstrate that the DPREP PGE properly responds to input orbit data (either type) that is not formatted in accordance with the ICD that define this format. The PGE should fail with an indication that the input file is not correct.	EC	
RH_5B_06		Demonstrate that the DPREP PGE properly responds to input GBAD data that is not formatted according to the ICD that define this format. The PGE should fail with an indication that the input file is not correct.	EC	
RH_5B_06		Demonstrate that the DPREP PGE properly responds to gaps in the input GBAD data stream as the result of one or more missing GBAD packets from either the 959 channel, the 957 channel, or both. Verify that the DPREP PGE correctly identifies gaps in the attitude data flags for the corresponding data values in the output attitude data granules.	EC	
RH_5B_06		Demonstrate that the DPREP PGE correctly identifies spikes or outliers in the input GBAD data stream for either the 959 channel, the 957 channel, or both. Verify that the DPREP PGE correctly identifies the anomalies via data flags for the corresponding data values in the output attitude data granules.	EC	
Test Input:	PM1-DPREP PGEs, FDS Definitive Data Sets, FDS Predictive Data Sets, GBAD Data Sets			
Test Output:	DPREP Produced Definitive Orbit Data Sets			
Test Configuration:	t1pls01, t1pls02, t1ais01, t1ins01, t1ins02, t1spg01, t1sps02, t1acs03, t1drg01			

13. LLBox and Oriented Polygon

Test Procedure No.:	5B10010	
Title:	LLBox and Oriented Polygon	
Objective:	This test case uses the V0 interface to test search access against collections that use LLBox and oriented polygon as spatial extents. These spatial searches can be combined with PSA and extended core metadata values. On this occasion, the V0 Gateway logging enhancements are also verified. A conversion script will be applied to data already residing in the inventory and particular attention will be applied to verifying conversion of BoundingBox granules to LLBox. In addition, new data will be ingested and it will be verified that the correct spatial type was used (oriented polygon, llbox) during the insert, and that the data points are ordered correctly, according to the 'right hand inside' rule. The V0 Web Client will also be used to perform various spatial searches on the data stored in the inventory in accordance with the ticket criteria, and the results will be verified with the inventory database, and the data granules that reside there. At least one search will cross the +180, -180 longitude discontinuity.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_01	10	Demonstrate the conversion of existing data to LLBOX – snapshot the inventory prior to conversion, paying attention those granule IDs with BoundingBox spatial definitions prior to conversion, and comparing those same IDs for correct LLBOX spatial definitions.	FC	1481
RM_5B_01	20	Ingest granules for an ESDT that uses LLBOX. – confirm correct use of the spatial type in the inventory	FC	1482
RM_5B_01	30	Ingest granules for an ESDT that uses oriented polygon. – confirm correct use of the spatial type in the inventory, and correct ordering of data points according to the "right hand inside" rule..	FC	1483

RM_5B_01	40	Use the EDG client to submit searches that specify a latitude/longitude extent as a search constraint against a collection using LLBOX rectangles; and against a collection using gpolygons as spatial extents. The searche areas must include geographic areas of different sizes and at different locations on the globe. They must be paired with conditions using a PSA and one extended core metadata attribute. Verify that the searches return the correct results.	FC	1484
RM_5B_01	50	Use the EDG client to submit searches that specify a polygonal spatial extent as a search crierion against a collection using rectangles; and against a collection using gpolygons. The searche areas must include geographic areas of different sizes and at different locations on the globe. They must be paired with conditions using a PSA and one extended core metadata attribute. Verify that the searches return the correct results.	FC	1485
RM_5B_01	60	Use the EDG client to submit searches that specify a latitude/longitude extent as a search constraint against two collections of which one uses LLBOX rectangles and the other gpolygons. The searche areas must include geographic areas of different sizes and at different locations on the globe. They must be paired with conditions using a PSA and one extended core metadata attribute.	FC	1486
RM_5B_01	70	Insert a granule with an oriented polygon covering an entire orbit. Verify it is found when the search area overlaps with the orbit, and not found when the search area is outside the orbit.	FC	1487

RM_5B_01	80	Insert a granule with an LLBOX rectangle covering a longitude extending all the way around the earth (i.e., a latitude band). Verify it is found when the search area overlaps with the band, and not found when the search area is outside the band.	FC	1488
RM_5B_01	90	Insert a granule with a global rectangle as coverage. Verify that it is found by spatial searches that covering geographic areas of different sizes and at different locations on the globe.	FC	1489
RM_5B_01	100	Submit a lat/long rectangle search crossing the +180 degrees to -180 degrees longitude discontinuity	FC	1490
Test Input:	• V0 search scenarios • Ingest requests • SDSRV Inventory Database queries • A set of predefined data granules that reflect various spatial areas needed to complete the test			
Test Output:	• Ingest GUI Monitor/Control Display Screen • Query results • SDSRV GUI Display Screen • Data successfully stored in the archive			
Test Configuration:	• Sybase, Netscape, SDSRV, V0GATEWAY, STGMT, DDIST, DMS, Ingest • t1ins01, t1acs03, t1dps01, t1drg01, t1icg01, t1acg01 • V0 Web Client			

14. ASTER On-Demand (ASTER L1B)

Test Procedure No.:	**5B12010**	
Title:	ASTER On-Demand (ASTER L1B)	
Objective:	This test will cover 2-way interoperability with ASTER GDS for ASTER L1B Processing and Automated On-Demand Production with non-default Parameters. Several searches to include directory, inventory and integrated browse will be performed for ASTER L1A granule from the GDS. The user will then submit a single and a multiple order for ASTER L1A. From the ODFRM the user will submit two On-Demand ASTER L1B using the information from the previous inventory search result screen. Email, contact information and MSS GUI shows order as on-demand. The MSS Order Tracking Database will be checked to determine that the status reflected for the on-demand ASTER 1B requests is "Awaiting L1B" after request has been forwarded to ASTER GDS. The D3 arrives from ASTER GDS with results on On-Demand ASTER L1B request (This will be simulated by using a test generated D3 Tape). The D3 Tape is processed by Ingest. The tester will ingest two non-standard (on-demand) L1Bs and a standard L1B from a D3 tape. (Only one of the non-standard L1B matches a submitted order.) The On Demand L1B's and simulated standard L1B archived and PLS is notified via SBSVR of L1B inserts. The test will verify that the one On-Demand L1B granule is correctly matched up with its order, it status is changed to "L1B received", and an e-mail notification is sent to the specified contact address while the other on-demand L1B granule is not matched up and causes no further action. The test will also verify that the non-standard L1B granules will not trigger the routine higher Level ASTER processing by initiating the DPR generation for ASTER routine processing for a time period spanning the on-demand requests. The test will verify the generated DPR's do not include DPRs for the inserted On-Demand ASTER L1Bs. The test will also verify that an un-authorized user can not submit an On-Demand ASTER L1B request.. Also tested will be the handling of error conditions when the ASTER Gateway is shut down or the ASTER Gateway to ASTER GDS communications link is down. **Preconditions:** A user profile authorized for on-demand ASTER L1B and one not authorized for on-demand ASTER L1B must exist. Valids for L1A and L1B have been imported into the DDICT for use by the ASTGW. This test includes Acceptance Criteria for the GDS interface by executing L1A directory and inventory searches and product requests. However, whether these will be tested as part of the ECS AT process use the DMS GDS interface simulator, or on-site after installation is still TBD. To perform successful directory searches for ASTER GDS, DIF entries for the collections have to exist in the GCMD, and GDS valids must have been imported into the Data Dictionary.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_03		Verify correct logging of ASTGW start-up and shut-down.	FC	
RM_5B_03		GDS INTERFACE TEST. Perform an ASTER directory search. And verify the results.	FC	
RM_5B_03		GDS INTERFACE TEST. Perform an inventory search ASTER L1A at GDS for inventory searching.	FC	
RM_5B_03		GDS INTERFACE TEST. Obtain an integrated browse for an ASTER L1A granule in an ASTER L1A GDS search.	FC	
RM_5B_03		GDS INTERFACE TEST. Order one ASTER L1A granule from the GDS.	FC	
RM_5B_03		GDS INTERFACE TEST. Submit several ASTER GDS requests concurrently to verify that the ASTGW can handle multiple concurrent sessions.	FC	
RM_5B_03		GDS INTERFACE TEST. Verify that the ASTGW logs its interactions with the GDS as required.	FC	
RM_5B_03		Start the ODFRM interface with the ASTER L1A inventory search result screen still open. Logged in as a user authorized to order ASTER L1B on-demand, submit two orders pasting GDS ASTER L1A granule Ids into the order form from the inventory search result screen. Verify the following: • e-mail notifications are received for both orders that supply the order ID • contact information can be supplied by entering it into the form, and is defaulted to the information contained in the user profile if omitted • the MSS GUI reflects flags the order as “on-demand” and displays the correct status	FC	

RM_5B_03		Verify that the ODFRM interface will display valid values and their defaults for ASTER L1B processing parameters: * **Map Projection**: Universal Transverse Mercator (default) Lambert Conformal Conic Polar Stereographic Space Oblique Mercator Uniform Lat/Lon * **Resampling Scheme**: Cubic Convolution (default) Nearest Neighbor Bilinear Interpolation	EC	
RM_5B_03		Ingest two non-standard L1B and a standard L1B. Only one of the non-standard L1B matches a submitted order. Verify the following: • the non-standard L1B granules will not trigger the routine higher-level ASTER processing • the on-demand L1B granule is correctly matched up with its order and an e-mail notification is sent to the specified contact address; the other on-demand L1B granule is not matched up and causes no further action • the ECS order tracking status is updated correctly	FC	
RM_5B_03		Use the MSS GUI to abort an ASTER on-demand request. Verify the following: • no e-mail notification is sent to the user by ECS. Verify • the order status is updated correctly • PLS recognizes the abort request (e.g., status in the PLS database changes)	FC	

RM_5B_03		Start the ODFRM interface with the ASTER L1A inventory search result screen still open. Logged in as a user not authorized to order ASTER L1B on-demand, submit an orders pasting one GDS ASTER L1A granule Id into the order form from the inventory search result screen. Verify that the order is rejected with the appropriate error response.	EC	
RM_5B_03		Verify that the ASTGW will shut down gracefully once it sent a request to the GDS (i.e., will wait until acknowledgment is received or the request has timed out and a response has been provided back to the PLANG CI.	EC	
RM_5B_03		Interrupt the ASTGW-GDS connection. Logged in as a user authorized to order ASTER L1B on-demand, submit an L1B order. Verify that an appropriate error is returned to the user because the ASTGW cannot submit the order to the GDS.	EC	
Test Input:	➢ D3 Tape including both ASTER On-Demand and standard L1B data ➢ ASTER GDS L1A data (either real or simulated)			
Test Output:	➢ Granules with Integrated browse. ➢ Directory Data information ➢ Updated Inventory Data information reflecting added ASTER 1B granules ➢ Ordered On-Demand L1B Data ➢ Email message to contact address of requestor ➢ DPRs generated for routine ASTER production.			
Test Configuration:	➢ T1ins01, t1ins02, t1acs03, t1dps01, t1drg01, t1mss06, t1pls01, t1pls02 ➢ Sybase, subscription, ODFRM, EDG, Netscape, SDSRV, V0GATEWAY, STGMT, Archive, MSS, ASTGW etc			

15. ASTER-On-Demand DEM

Test Procedure No.:	5B12020	
Title:	ASTER-On-Demand Digital Elevation Model (DEM) Functionality	
Objective:	This test case will verify that ECS supports user requests for On-Demand production of ASTER DEM data. The test will show that users will login to the EDG and be able to search on ASTER L1A/L1B data, use the search results to populate a data order form, and submit the orders for ASTER DEM products. The test will verify the proper functioning of ODFRM for requesting DEM products. This will include verifying the proper functioning of the receipt and validation of user-supplied parameters for the request. The test will verify that an ECS user entry of an invalid geoID will not cause an ECS system fault but will provide an appropriate status to the user. The test will verify that the DAAC operator will receive mail notification of the order. The test case will verify that when an ordered DEM granule is ingested, the pending order is matched correctly, prioritized, the resultant product is staged, and the user is notified of availability of the product. The test case will verify that the DAAC MSS Order Tracking GUI lists the product as "On-Demand" and that DAAC user services can cancel the order.. The test will show that the system can support the requesting, forwarding and ingest of the results of one ASTER DEM request per day.	

Criteria Mapping

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_04	10	Using the EDG client search for DEM inputs in ECS. Verify that the L1A/L1B attributes defining whether a DEM can be generated (presence of stereographic bands) can be displayed in the V0 search result, and can be used for searching.	FC	1580
RM_5B_04	20	With the V0 search result screen open, bring up the ODFRM order forms. Submit two DEM orders by copying / pasting the granule geoIDs from the V0 search result into the ODFRM forms. Verify the following: • a login prompt is displayed and can be used to login as a registered ECS user • contact and shipping information can be supplied by entering it into the form, and is defaulted to the information contained in the user profile if omitted • media distribution options can be specified and match what is available at the ECS DAACs • e-mail notifications are received for both orders that supply the order ID • e-mail notifications for both orders are sent to the operator e-mail address, and contain	FC	1581

		the details of the order including order ID and contact information. • the MSS GUI reflects flags the order as "on-demand" and displays the correct status		
RM_5B_04	30	Verify that the ODFRM interface will display valid values and their defaults for ASTER DEM processing parameters, performs the specified input validations, and returns input error indications t the user.	FC	1582
RM_5B_04	40	Ingest one of the DEM granules that have been ordered into ECS, after having updated its meta data to include the OrderID. Verify the following: • the on-demand DEM granule is correctly matched up with its order and an order for the granule is placed on behalf of the user • the priority of the request matches the priority configured for on-demand processing orders • the ECS order tracking status is updated correctly	FC	1583
RM_5B_04	50	Use the MSS GUI to cancel the second DEM order. Verify that ingesting this DEM with the orderID in the meta data set to the order ID of the cancelled order will not trigger the submission of a data order.	FC	1584
RM_5B_04	60	Enter an invalid geoID. Show that this will not cause an ECS fault, even if the order is initially accepted.	EC	1585
RM_5B_04	70	Verify that it is not possible to submit a DEM on-demand processing order without logging in as a registered ECS user.	EC	1586
RM_5B_04	80	Show system can support the requesting, forwarding and ingest of the results of one ASTER DEM request per day.	PC	1587

Test Input:	• Populated data inventory with ASTER L1A/L1B data available • Search requests for ASTER L1A/L1B data • ASTER DEM order parameters • ASTER DEM granule for ingesting into the DAAC database (must match data order)
Test Output:	• Email of Order ID and status messages received by the ECS user • Email of DEM Order to DEM operator address • Staged DEM data matching the data orders • Email message to user of DEM availability • Correct status messages displayed in MSS Order Tracking GUI
Test Configuration:	➢ t1ins01, t1ins02, t1acs03, t1dps01, t1drg01, t1mss06, t1pls01, t1pls02 ➢ Sybase, Subscription, ODFRM, EDG, Netscape, SDSRV, V0Gateway, STGMT, Archive, MSS, ASTGW etc

16. On-Demand ASTER Higher Level Products

TEST Procedure No.:	5B12030	
Title:	On-Demand ASTER Higher Level Products	
Objective:	This test will demonstrate the ability to perform On-Demand ASTER Higher Level Products. This form of ASTER processing allows the user to request one of the higher level products that can be produced by the ASTER ACVS PGE. ASTER Higher Level Products are archived in STMGT once they are produced and inserted by DPS. The OnDemand manager will provide a way for the scientists to directly submit requests to the system through the ODFORM interface. The ODFORM will create a file in a predetermined location from which the ODPRM will read and process. Once the processing is complete the science user will be notified via email. The following paragraph briefly describes the processes executed in this test. The Scientist searches the ECS holdings for ASTER images that are over their area of study. EDG submits the Science User's search criteria to the V0 Gateway in ODL format, via a specific socket. The V0 Gateway translates the search criteria from ODL to a query object and submits that query to the Search service. The results of this Search are returned synchronously and are passed back to EDG, which displays them to the Science User. One of the ASTER higher level products will be ordered by two different users to trigger processing at the same time. The scientist desires a product that does not exist in the archive. They pick the URs of the inputs (which are used to create the desired higher level product) and create an On-demand Production Request via the ODFRM GUI. (Note: All of the input granules will not be available during time of search. They will be ingested after the data processing requests are activated.) All the users selections for the On-demand Production Request are stored in an ODL file which is written to an area where ODPRM can access it. ODPRM polls the area, finds the new file and parses the information within. DPRs for PGEs to produce the requested products are created and submitted to DPS. PLS places subscriptions on those inputs that have not been archived. PLS also places a subscription on the output products desired by the user. PLS then sets the status of the On-demand request to STARTED in the PDPS database. Subscription server notifies PLS when data is available in the archive by a subscription notification. Once all inputs are available to run the PGE, references to those input granules are passed to DPS and the jobs that make up the On-demand Production Request are released. DPS updates the status of the On-demand request as it goes through the various stages of processing. The status of the On-demand data processing request is tracked by the MSS GUI. DPS submits an acquire request for input granules, via ftpPush, for input to PGEs. PGEs run, creating desired higher level products. DPS gets the DSS UR from the Advertising Server. Once the newly created products are archived the subscription notification for the insert of the higher level product is triggered. PLS submits a user acquire request, to request that DSS transfer the product(s) to the user who made the On-demand request. The Science Data Server acquires the data for the user. It is sent via ftp or placed on requested media. An email notification is sent to the Science User, notifying the user that the requested product(s) has been produced. This test will also show that after failure or expiration of an order, the MSS GUI properly tracks the state of that order and proper email notification is sent and received by the user.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_05	10	Register a large number of possible combinations of processing parameters that select a specific PGE profile for automated ASTER on-demand higher level processing in the PGE database. Verify the following: • they all can be registered correctly. • one and only one profile can be designated the default profile • duplicate parameter combinations cannot be registered as separate profiles • the time delay for deletion of the output products can be specified (in weeks)	FC	1588
RM_5B_05	20	Using the EDG client, search the data server for L1B granules. With the V0 search result screen open, bring up the ODFRM order forms. Submit higher level product orders by copying / pasting the granule geoIDs from the V0 search result into the ODFRM forms. The orders must satisfy the following criteria: • Each of the on-demand ASTER higher level products must be ordered and produced at least once • At least one of the on-demand ASTER higher level products must be ordered twice by different users such that its processing is triggered at the same time • At least two orders are for at least three granules; in each case, all inputs for one granule are immediately available, whereas inputs for the remaining granules are missing. Verify the following: • a login prompt is displayed and can be used to login as a registered ECS user • contact and shipping information can be supplied by entering it into the form, and is defaulted to the information contained in the user	FC	1589

		profile if omitted • media distribution options can be specified and match what is available at the ECS DAACs • e-mail notifications are received for all orders and supply the order ID • the MSS GUI reflects flags each order as "on-demand" and displays the correct status		
RM_5B_05	30	Verify that the ODFRM interface • Displays valid values and their defaults for the processing parameters applicable to the order. • Does not display prompts for processing parameters that do not apply to the order. • Performs the specified input validations, and returns input error indications t the user.	FC	1590
RM_5B_05	40	Verify the following: • Requests for higher level granules for which all inputs are immediately available are processed immediately, regardless of whether the inputs for other granules submitted with the same order are available, and subject only to the availability of on-demand processing slots. • The state of these granules is correctly reflected in the MSS GUI as each granule moves through processing. • Requests for higher level granules for which all inputs are not available are held back and their state is correctly reflected in the MSS GUI as "Waiting for data".	FC	1591

RM_5B_05	50	Ingest missing inputs for granules in a multi-granule order that are waiting for data. Verify the following: • The data processing requests are released into processing. • The jobs are submitted into Autosys on a first-in, first-out bases. • The MSS request status tracks the progress of the granules through the PDPS and can be displayed correctly via the MSS GUI.	FC	1592
RM_5B_05	60	Verify that all products are produced in accordance with the specified processing parameters; and that orders from different users for the same product can be processed concurrently by DPS without problems.	FC	1593
RM_5B_05	70	Verify that on-demand products are submitted for distribution once their production completes, and that the distribution request are assigned the priority configured for on-demand requests.	FC	1594
RM_5B_05	80	Verify that concurrent processing of the same on-demand product by two different users completes normally, and the distribution requests are successful.	FC	1595
RM_5B_05	90	Verify that all output products of on-demand processing are correctly flagged for deletion by the PDPS deletion server. (Note: the deletion server was tested during 5A and its functions do not need to be re-tested as part of this criterion)..	FC	1596
RM_5B_05	100	Verify that the on-demand processing slots can be changed via configuration, and that on-demand processing jobs are submitted into Autosys in accordance with the specified limit.	FC	1597
RM_5B_05	110	Verify that the on-demand processing priority can be changed by the operator such that on-demand processing jobs take precedence over routine processing jobs.	FC	1598

RM_5B_05	120	Verify that the MSS GUI can be used to perform the following functions: • display all on-demand orders and their status • display the on-demand orders for a given user and their status	FC	1599
RM_5B_05	130	Verify that the MSS script can be used to list the current on-demand request queue, sorted by one of the following: status, user id, order_id, ESDT id, or date/time queued.	FC	1600
RM_5B_05	140	Verify that an operator can list the contents of an on-demand order via a script.	FC	1601
RM_5B_05	150	Use the MSS GUI to cancel an on-demand request waiting for data. Verify that the request will not be executed, and that its new state is correctly reflected in the PDPS database.	FC	1602
RM_5B_05	160	Use the MSS GUI to cancel an on-demand request being processed. Verify that the request will complete execution but the outputs will not be distributed, and that its new state is correctly reflected in the PDPS database.	FC	1603
RM_5B_05	170	Use the PDPS GUI to cancel an on-demand request while it is being processed. Verify that the MSS GUI correctly reflects the new state as "Canceled", and that its new state is correctly reflected in the PDPS database.	FC	1604
RM_5B_05	180	Verify that the expiration time period for on-demand processing requests can be configured.	FC	1605
RM_5B_05	190	Verify that orders that a check is performed for completed / terminated orders based on an operator configurable time interval. Verify that orders that were completed are removed form the PDPS a configured time period past their completion time (as recorded in the MSS order tracking database). Verify that orders that are only partially complete are not removed from the PDPS database even if some of the requests completed prior to the cut-off date.	FC	1606

RM_5B_05	200	Cause the expiration of a complete order. Verify the following: • The request expires at the appropriate time. • The data processing request is removed form the processing queue. • The user is notified via e-mail of the expiration, and the e-mail includes the configured preamble, the order ID, and the reason for expiration. • The expired state is correctly reflected by the MSS order tracking GUI for both the order and the request.	EC	1607
RM_5B_05	210	Cause the expiration of one of the requests in a multi-request order, whose other requests complete successfully. Verify the following: • The data processing request is removed form the processing queue • The user is notified via e-mail of the expiration, and the e-mail includes the configured preamble and the order ID, and the reason for expiration. • The expired state of the request is correctly reflected by the MSS order tracking GUI • The termination state f the order is correctly reflected by the MSS order tracking GUI	EC	1608
RM_5B_05	220	Cause the failure of an on-demand job during processing. Verify the following: • The user is notified of the failure via an e-mail message that includes the configured preamble, the orderID, and identifies the failur.e • The failed state is correctly reflected by the MSS order tracking GUI as “Aborted”. • The failed state is correctly reflected in the planning database.	EC	1609

RM_5B_05	230	Shut down the MSS order tracking server while on-demand orders are in progress. Verify the retry behavior of the PLANG and PRONG components that attempt to update request status.	EC	1610
RM_5B_05	240	Shut down the Job Manager while PLANG is processing on-demand request submissions. Verify the retry behavior of the PLANG component submitting the jobs into processing.	EC	1611
RM_5B_05	250	Attempt to submit an on-demand processing order without logging in. Verify that this is not possible.	EC	1612
RM_5B_05	260	Attempt to login and submit an on-demand processing order using a userID for which there is no user profile. Verify that this is not possible.	EC	1613
RM_5B_05	270	Show that system can support the requesting, processing and distribution of the results of 180 ASTER on-demand product requests per day. NOTE: The number of requests (180) was determined by taking 50% of the number of daily on-demand ASTER requests in the Feb 96 Technical Baseline. The performance test should assume the requests are split approximately equally amongst the various on-demand higher-level products available to be requested.	PC	1614
Test Input:	ASTER Level 1 Data Sets, ASTER Synthetic PGEs			
Test Output:	ASTER Higher Level Product			
Test Configuration:	t1pls01, t1pls02, t1ins01, t1ins02, t1sps02, t1spg01, t1ais01, t1acs02, t1drg01 PLS, DPS, SDS, DMS, MSS, IOS, CLS			

17. Restricted Granule Access

Test Procedure No.:	**5B10050**	
Title:	Restricted Granule Access	

Objective: This test case verifies granule level access to data by various users. The different users, as specified in their user profiles, are Privileged NASA User (P), Regular NASA User ® and Non-NASA User (N). Access to data is based on several things. First, the ESDT has two parameters that must be set to determine the first level of access. One of these parameters is the 'accessPermissions' flag which is any combination of user priorities (PRN), or NULL (no limit) to determine who can gain access to the data. He other parameter is the 'temporalRestriction' flag. This flag tells how long the QA period is, or how long the user should be denied access to a granule after the ProductionDateTime of that granule. If this parameter is NULL, no temporal restrictions are made (users can gain access immediately, if they pass other access criteria). These two parameters are defaulted to NULL for each ESDT after it is added into the SDSRV.

If the user passes the first test, the rules are invoked to again determine if the user has access. This time access is denied or granted based on values of (all occurrences of) the ScienceQualityFlag and the OperationalQualityFlag in the metadata of the granule the user wants to acquire. Depending on the value of these two flags, and if the QA period has expired, and the user's access privileges, and the rules (see chart below), the user will either be granted or denied access to the graule. The user does not get any direct notification if he is denied access.

ScienceQualityFlag	**T < QA time**	**T >= QA time**
Null	P	PRN
Passed	PRN	PRN
Failed	P	P
Being Investigated	P	P
Not Investigated	P	PRN
Inferred Passed	P	PRN
Inferred Failed	P	PRN

OperationalQuality Flag	**T <= QA time**	**T > QA time**
Null	P	PRN
Passed	PRN	PRN
Failed	P	P
Being Investigated	P	P
Not Investigated	P	PRN
Inferred Passed	P	PRN
Inferred Failed	P	PRN

Granules with all combinations of QA flags (and some with multiple entries of the QA flags) will be ingested into the system. Three users, with various access privileges (PRN), will be used to order data. The users will be granted or denied access to the data depending on whether they're outside the QA window, what their access privilege is, and what the rules state for who has access for each combination of QA flags. The Expected Results chart below (will be added in the draft of the test case – not present in summary)

shows what to expect for each case.

FtpPush Subscriptions will be placed on the data type on behalf of each privileged-level user (PRN) and data with various QA flag settings (in accordance with the ticket criteria) will be ingested. The access or denial of access will be verified for each granule for each user. A DPR will be kicked off for a 'P' user andit's acquire request is granted. The ASTER E-Mail Gateway will be used to acquire a granule of ASTER Expedited data for a 'P' user, and it's acquire request is granted.

Acquire requests will be made as the user 'ECSGuest', which will be processed as a Non-NASA User (N), and with no user profile, which will be processed as a Privileged NASA User (P) (in this case, SDSRV will assume the request came from within ECS) and process it with the highest privilege level.

Error cases include performing acquire requests for each type of user, including a DPR, when the User Profile Server is down. In the event the User Profile server is inoperable, requests for granules submitted will be re-tried for a period of time as designated in the SDSRV CFG file. Should the User Profile Server become operable within this time period, the request will be processed. In addition, a subscription will be entered on the SBSRV GUI on behalf of a USER ID for which there is no user profile, and the subscription is rejected.

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_10	10	Insert a new ESDT. Verify that its QA Time range and QA independent access permission are both NULL.	FC	1387
RM_5B_10	20	Use an ESDT with a NULL QA Time range and a QA independent access permission of NULL. Use granules with all possible combinations of QA flag settings. Attempt to acquire the granules for FTPPull as a Non-NASA user. Verify the following: • Only the access rules within the QA Time period apply • The access rules for the two QA flags are combined correctly • All acquire attempts performed using user Ids authorized to access a granule succeed; and all acquire attempts performed using userIDs not authorized to access a granule fail. • All failed acquire attempts are logged by the SDSRV	FC	1388

Rm_5B_10	30	Use an ESDT with a NULL QA Time range and a QA independent access permission of NULL. Use granules with all possible combinations of QA flag settings. Attempt to acquire the granules for FTPPull as ECSGuest. Verify that the accesses are treated as if they were done by a Non-NASA user.	FC	1389
RM_5B_10	40	Use an ESDT with a NULL QA Time range and a QA independent access permission of NULL. Use granules with all possible combinations of QA flag settings. Attempt to acquire the granules for FTPPull as a Regular NASA user. Verify the following: • Only the access rules within the QA Time period apply • The access rules for the two QA flags are combined correctly • All acquire attempts performed using user Ids authorized to access a granule succeed; and all acquire attempts performed using userIDs not authorized to access a granule fail. • All failed acquire attempts are logged by the SDSRV	FC	1390
RM_5B_10	50	Update the QA Time range for an ESDT from NULL to some other value.	FC	1391

RM_5B_10	60	Use an ESDT with a non-NULL QA Time range and a QA independent access permission of NULL. Use granules with all possible combinations of QA flag settings, inside and outside the QA time period. Attempt to acquire the granules for FTPPull as a Non-NASA user. Verify the following: • The access rules for the correct time period are applied. • The applicable access rules for the two QA flag values are combined correctly • All acquire attempts performed using user Ids authorized to access a granule succeed; and all acquire attempts performed using userIDs not authorized to access a granule fail. • All failed acquire attempts are logged by the SDSRV	FC	1392
RM_5B_10	70	Use an ESDT with a non-NULL QA Time range and a QA independent access permission of NULL. Use granules with all possible combinations of QA flag settings, inside and outside the QA time period. Attempt to acquire the granules for FTPPull as a Regular NASA user. Verify the following: • The access rules for the correct time period are applied. • The applicable access rules for the two QA flag values are combined correctly • All acquire attempts performed using user Ids authorized to access a granule succeed; and all acquire attempts performed using userIDs not authorized to access a granule fail. • All failed acquire attempts are logged by the SDSDRV	FC	1393

RM_5B_10	80	Use an ESDT with a non-NULL QA Time range and a QA independent access permission of NULL. Use granules with all possible combinations of QA flag settings. Attempt to acquire the granules for FTPPush as a Privileged NASA user. Verify that all acquire requests succeed.	FC	1394
RM_5B_10	90	Use an ESDT with a NULL QA Time range and a QA independent access permission of NULL. Place three subscriptions on the ESDT for FTP Push Acquire: one on behalf of a Non-NASA user; one on behalf of a Regular NASA user; one on behalf of a Privileged NASA User. Insert three granules with different combinations of QA flag settings such that one is accessible to Non-NASA users, two are accessible to Regular NASA users, and the remaining one is only accessible to Privileged NASA users. Verify that the requests succeed or are rejected in accordance with the access permissions implied by the QA Flags.	FC	1395
RM_5B_10	100	Update the QA independent access permissions for an ESDT from NULL to the value 'PR'. Verify the following using FTPPull acquire requests: • An acquire for a granule whose QA Flags would permit access by Non-NASA users fails if done as ECSGuest, but succeeds if performed as a Regular and Privileged NASA user. • An acquire for a Granule whose QA Flags prohibit access by a Regular NASA User does indeed fail if done as Regular NASA User.	FC	1396

RM_5B_10	110	Update the QA independent access permissions for an ESDT from 'PR' to the value 'P'. Verify the following using FTPPull acquire requests: • Acquire attempts for a granule whose QA Flags would permit access by non-NASA or Regular NASA users fail if done as a ECSGuest or Regular NASA User. • The acquire attempt succeeds if performed as a Privileged NASA user.	FC	1397
RM_5B_10	120	Set the QA independent access permission of an ancillary ESDT used in science processing to 'P'. Kick-off a DPR that needs a granule from that ESDT as input. Verify that the DPR can acquire the granule.	FC	1398
RM_5B_10	130	Set the QA independent access permission of an expedited ASTER ESDT to 'P'. Cause the ASTER EDR e-mail gateway to acquire a granule from that ESDT. Verify that the request succeeds.	FC	1399
RM_5B_10	140	While the User profile server is down, perform an acquire request as a Regular NASA user for a granule that is accessible to all users. Verify that the acquire request succeeds.	EC	1400
RM_5B_10	150	While the User profile server is down, cause an acquire request to be submitted from a DPR. Verify that the acquire request succeeds.	EC	1401
RM_5B_10	160	Perform several acquire requests as a Regular NASA user. Shut down the User Profile Server. While the User profile server is down, submit an acquire request as a Regular NASA user for a granule that is not accessible to Non-NASA Users but is accessible to Regular NASA users. Verify that the acquire request is retried for the amount of time configured in the SDSRV configuration settings; and that it succeeds if the User Profile server is restarted before that time elapses.	EC	1402

RM_5B_10	170	Attempt to submit a subscription on behalf of a User ID for which there is no user profile. Verify that the subscription request is rejected.	EC	1403
Test Input:	• Acquire Requests from users with varying privilege levels, and submitted from the V0 Web Client and from PDPS • Ingest Requests • Query Requests from users with varying privilege levels • A predefined set of granules with the combinations of the QA flags and ProductionDateTimes needed to exiercise this test			
Test Output:	• SDSRV/DDIST GUIs and log file messages • Data staged to the PDPS Staging area and log file messages • SDSRV Inventory Database query results • Data staged to the requested Push or Pull destinations • Data stored in the archive and subscriptions triggered			
Test Configuration:	• EcSbSubServer, EcDsScienceDatatServer, EcDsDistributionServer, EcDsStPullMonitorServer, EcDsStArchiveServer, EcDsStStagingDiskServer EcDsStStagingMonitorServer, EcDsClientDriver, EcClDtUserProfileGateway, EcPlSubMgr, EcDpPrJobMgmt,EcDpPrDeletion,EcIoAdServer, EcDsStFtpDisServer, EcDsStIngestFtpServer, EcInPolling, EcInReqMgr, EcInGran • t1ins02, t1acs03, t1dps01, t1acg01, t1drg01, t1ins01, t1pls01, t1ais03 • V0 Web Client			

18. User Profile Enhancements

Test Procedure No.:	5B08020	
Title:	User Profile Enhancements	
Objective:	This test case will show that the User Registration GUI is able to create/change the user's privilege (P, R or N)) associated with restricted granule accesses. It also shows to allow/disallow a user for an ASTER L1B on-demand order in combination with P,R or N user privileges.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_11	10	Create user profiles with the following characteristics: 1. Authorized users for ASTER L1B on-demand orders 2. Not Authorized users for ASTER L1B on-demand orders 3. Privileged User (P) 4. Regular User (R) 5. Non-NASA User (N)	FC	1433
RM_5B_11	20	Update user profiles and change the following characteristics: 1. Authorization for ASTER L1B on-demand orders 2. NASA User Type	FC	1434
RM_5B_11	30	Verify that it is not possible to enter a NASA User Type other than Privileged, Regular, or Non-NASA into a user profile.	EC	1435
RM_5B_11	40	Verify that it is not possible to enter a privilege other than “Authorized for ASTER L1B” and “Not Authorized for ASTER L1B” into the user privilege field of a user profile.	EC	1436

Test Input:	• Users with "P" privilege and authorized for an ASTER L1B on-demand order. • Users with "R" privilege and authorized for an ASTER L1B on-demand order. • Users with "N" privilege and authorized for an ASTER L1B on-demand order. • Users with "P" privilege and not authorized for an ASTER L1B on-demand order. • Users with "R" privilege and not authorized for an ASTER L1B on-demand order. • Users with "N" privilege and not authorized for an ASTER L1B on-demand order. • Existing profiles
Test Output:	• Valid user profiles with "P" privilege and authorized for an ASTER L1B on-demand order. • Valid user profiles with "R" privilege and authorized for an ASTER L1B on-demand order. • Valid user profiles with "N" privilege and authorized for an ASTER L1B on-demand order. • Valid user profiles with "P" privilege and not authorized for an ASTER L1B on-demand order. • Valid user profiles with "R" privilege and not authorized for an ASTER L1B on-demand order. • Valid user profiles with "N" privilege and not authorized for an ASTER L1B on-demand order. • Valid modification to the existing user profile
Test Configuration:	• t1mss06 • Sybase, EcMsAcRegUserSrvr

19. Update ESDT

Test Procedure No.:	5B08040	
Title:	Update ESDT	
Objective:	This procedure exercises a new feature within the SDSRV which permits updates to existing ESDTs via the SDSRV GUI. With this update procedure, the Data Dictionary shall be able to accept an update ESDT message from SDSRV in order to update collection metadata in the Data Dictionary database; the SDSRV shall provide the capability to update Collection level metadata with granules existing in the inventory for that ESDT; and the SDSRV shall provide the capability to update Collection level metadata with granules existing in the inventory for that ESDT. This capability is limited to adding (only) metadata, services, and events and only existing metadata atribute values can be changed. In order to use this capability, SDSRV must be running in the "maintenance" mode. In maintenance mode (actually a StartTemperature rather than a mode), only update functions will be allowed; this test will verify that SDSRV rejects search, acquire, insert and inspect requests while in maintenance mode. Requests to update ESDTS where the descriptor file specified via the update screen has no changes from the existing ESDT – these requests will be unsuccessful. Also, no update functions will be permitted in normal operations of SDSRV. As necessary, ADSRV, SDSRV, DDIST and SBSRV will be recycled to show that ESDT updates will fail when these servers are not operating, and that the update request can recover from these types of failures. The prerequisite for executing this procedure is the preparation of ESDT descriptors which embody changes to existing ESDTs. The types of changes which are permitted and will be exercised in this procedure include: ➢ Additional optional collection metadata ➢ Additional optional inventory metadata including PSA ➢ Additional services ➢ Additional events ➢ new parameters added to an existing service ➢ valid changes to values of single- and multi-valued collection level metadata ➢ additional inventory level metadata valids ➢ change of a mandatory attribute to optional When an ESDT has been updated by adding additional collection metadata, this procedure will validate: ➢ The updated collection metadata is resident in the SDSRV database ➢ The Advertising and DDICT subsystems will replace the existing collection metadata with the new one. When the inventory metadata has been updated, this procedure will validate: ➢ The DDICT Server will replace both collection and inventory metadata This procedure ensures that updates to ESDT attributes which have been designated as non-updateable are adhered to. Specifically, updates to the attributes VersionID, InstrumentShortName, and PlatformShortName should not be permitted.	

	This procedure also exercises the capability to install and update the Reference Collector descriptor via the SDSRV GUI. Messages to the SDSRV GUI and to the SDSRV log files list appropriate errors for update failures and successes. Once updates to ESDTs are made, data will be ingested, subscriptions triggered and the data acquired to verify existing or updated services.			
Ticket Id	**Criteria Id**	**Criteria Statement**	**Criteria Type**	**Criteria Key**
RM_5B_13	10	Using the SDSRV GUI, process prepared descriptor changes that exercise adding optional collection metadata, optional inventory metadata, services, events and new qualifiers on existing events. Verify the following: a. the SDSRV GUI can be used to request the installation of the ESDT updates. b. the GUI lets the operator select several ESDT at once for update. c. the GUI displays confirmation of successful update. d. the ESDT changes were successfully processed and installed in the SDSRV, ADSRV, DDICT, and SBSRV. e. the inventory metadata for the existing granules remained intact. f. granules that make use of the changed ESDTs can be inserted. g. the event updates were successfully processed and installed in the SBSRV and ADSRV. h. the service updates were successfully processed and installed in the ADSRV. i. updated events retained the same event identifier. j. the previously existing subscriptions remained intact and fire during inserts performed after the ESDT updates are applied. k. the new services are indeed accessible	FC	1496
RM_5B_13	20	Using the SDSRV GUI, process the preapred changes to the Collection Reference Descriptor. Verify that the changes are processed correctly and are reflected in the SDSRV.	FC	1497
RM_5B_13	30	Using the SDSRV GUI, use an unchanged descriptor for an ESDT update. Verify that the SDSRV GUI informs the operator that no changes were detected.	FC	1498

RM_5B_13	40	With the SDSRV in maintenance mode, verify that the SDSRV will reject search, acquire, and insert requests.	FC	1499
RM_5B_13	50	Attempt to use the descriptors containing valids violations for updates. Verify that the ESDT update is rejected and appropriate error information is provided to the operator via the GUI or the application log file. Correct the valids violation and resubmit the ESDT update. Verify that the update succeeds and was correctly processed.	EC	1500
RM_5B_13	60	Attempt to process the descriptors containing updates to attributes that are non-updateable. Verify that the update attempt is rejected and that the ESDTs remain accessible in normal mode (i.e., that they have not been flagged as “invalid”)..	EC	1501
RM_5B_13	70	Attempt to process a changed descriptor while ADSRV is down. The attempt should fail. Restart ADSRV and resubmit the ESDT update. Verify that the update succeeds and was correctly processed.	EC	1502
RM_5B_13	80	Attempt to process a changed descriptor while DDICT is down. The attempt should fail. Restart DDICT and resubmit the ESDT update. Verify that the update succeeds and was correctly processed.	EC	1503
RM_5B_13	90	Attempt to process a descriptor that includes changes to events as well as new events, while SBSRV is down. The attempt should fail. Restart SBSRV and resubmit the ESDT update. Verify that the update succeeds and was correctly processed.	EC	1504

RM_5B_13	100	Attempt to process a descriptor that includes changes to events as well as new events. Time an ADSRV failure to occur after the SDSRV exported its changes to the ADSRV, but before the SBSRV attempts to export its changes to the ADSRV. The attempt should fail. Then restart the ADSRV and resubmit the ESDT update. Verify that the update succeeds and was correctly processed.	EC	1505
RM_5B_13	110	Induce an SDSRV failure while it processes an ESDT update. Restart the SDSRV and resubmit the ESDT update. Verify that the update succeeds and was correctly processed.	EC	1506
RM_5B_13	120	Warm start the SDSRV in non-maintenance mode after an ESDT update failed in maintenance mode. Verify that the warm restart succeeds. Attempt to access granules belonging to the ESDT whose update failed. Verify that the accesses fail with the correct error indication. Terminate the SDSRV and restart it in maintenance mode. Resubmit the ESDT update and let it complete successfully. Warm-restart the SDSRV in non-maintenance mode and verify that granules belonging to that ESDT can now be accessed.	EC	1507
RM_5B_13	130	Induce an SDSRV failure while it processes an ESDT update. Restart the SDSRV and resubmit the original ESDT. Then restart the SDSRV in normal mode and attempt to access the descriptor. Verify that the descriptor is flagged invalid and cannot be used.	EC	1508
Test Input:	1. Specified ESDT Descriptor updates 2. Data granules for the updated ESDTs 3. Data base queries via ISQL and the V0 Web Client			
Test Output:	1. SDSRV GUI Display 2. Ingest GUI Monitor/Control Display 3. SDSRV, DDICT, Subscription, Advertising Database query results 4. SDSRV , DDICT, Subscription, Advertising Logs			
Test Configuration:	1. SDSRV, SBSRV, SDSRV GUI, STMGT GUI, CLS, INS, Ingest, DDIST, STMGT, ADSRV 2. t1acs03, t1dps01, t1drg01, t1acg01, t1icg01, t1ins01, t1ins02 3. EcTsDsClientDriver, V0 Web Client			

20. Landsat-7 Floating Scene Subsetting

Test Procedure No.:	**5B10060**	
Title:	Landsat-7 Floating Scene Subsetting	
Objective:	The objective of this test is to prove the capability of the system to cost and acquire global areas of Landsat-7 scene data within the range of .3 to 37 scenes through selected media and ordering devices. This includes full band floating scene products and band subsetted floating scene products. The test uses the EDG Client (V0 Web Client) to submit orders, and the V0ToEcsGateway and the LimServer to submit price estimate requests to DORRAN. The DORRAN users interface is tested to verify that each order was received, cost estimates provided, and completion notification sent. Each cost estimate is checked to insure that it is in accordance with the ECS Cost Algorithm. It is not yet clear if the DORRAN portion of this test will be verified in the VATC or on-site at EDC. A sample selection of products will be used to verify the user interface and subsetting capabilities as follows: a) Full band products include: ➢ less than 1 scene ➢ 3 scenes ➢ 5 scenes ➢ 20 scenes ➢ a whole subinterval. b) Band subsetted products include: ➢ Bands 1-6a ➢ Bands 6b-8 ➢ Bands 4 & 7 ➢ Band 8 only ➢ No Bands c) Spatial extent tests are performed on the above band subsetted products for the following: ➢ less than 1 scene ➢ 3 scenes ➢ 5 scenes ➢ 20 scenes ➢ full subinterval The test will also demonstrate elements of failure reporting and load testing as follows:	

- 8MM Tape scene overload
- Order Tracking and DORRAN Error Reporting
- DORRAN Failure

LIM Server Failure.

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
SM_5B_02	10	From the EDG Client submit separate price estimate requests for full band floating scene products of the following approximate sizes: a) < 1 scene b) 3 scenes c) 5 scenes d) 20 scenes e) whole subinterval Check that the prices returned are consistent with the GFE algorithm.	FC	1462
SM_5B_02	20	From the EDG Client submit separate orders for full band floating scene products of the following approximate sizes: a) < 1 scene (electronic) b) 3 scenes (tape) c) 5 scenes (electronic) d) 20 scenes e) whole subinterval (<10 scenes – tape)	FC	1463
SM_5B_02	30	From the DORRAN User services GUI verify that each order was received, and that after approval and ECS processing that order completion notifications were received.	FC	1464
SM_5B_02	40	From the EDG Client submit a single price estimate request for multiple full band floating scene products of the following approximate sizes: a) < 1scene b) 3 scenes Check that the prices returned are consistent with the GFE algorithm	FC	1465
SM_5B_02	50	From the EDG Client submit a single order for mulitple full band floating scene products of the following approximate sizes: a) < 1 scene b) 3 scenes	FC	1466

SM_5B_02	60	From the DORRAN User services GUI verify that the order was received, and that after approval and ECS processing that order completion notification was received.	FC	1467
SM_5B_02	70	From the EDG Client submit separate price estimate requests for band subsetted floating scene products as follows: a) Bands 1-6a b) Bands 6b-8 c) Bands 4 & 7 d) Band 8 only e) No Bands For item a) – e) perform separate tests for spatial extents: i. < 1 scene ii. 3 scenes iii. 5 scenes iv. 20 scenes v. full subinterval Check that the prices returned are consistent with the GFE algorithm.	FC	1468
SM_5B_02	80	From the EDG Client submit separate orders for band subsetted floating scene products as follows: a) Bands 1-6a b) Bands 6b-8 c) Bands 4 & 7 d) Band 8 only (ensure request covers at least 2 Band 8 data files) e) No Bands For item a) – e) perform separate tests for spatial extents: i. < 1 scene ii. 3 scenes iii. 5 scenes iv. 20 scenes v. full subinterval	FC	1469
SM_5B_02	90	From the DORRAN User services GUI verify that the orders were received, and that after approval and ECS processing that order completion notifications were received.	FC	1470
SM_5B_02	100	Submit a production request to the LPDS through their order systems. Review the ECS logs to confirm logging in accordance with the requirements	FC	1471

SM_5B_02	110	From the EDG Client attempt to submit an order for full band floating scene products of the following approximate size on tape a) 15 scenes The attempt should fail as being too large to fit on a single media.	EC	1472
SM_5B_02	120	From the EDG Client submit a single order for multiple full band floating scene products of the following approximate sizes - delivered electronically: a) < 1 scene b) 3 scenes Induce a fatal order failure of part (b) Check success product generation, and check for correct order tracking and failure notification to DORRAN and User	EC	1473
SM_5B_02	130	From the EDG Client submit a single order for multiple full band floating scene products of the following approximate sizes - delivered on tape: a) < 1 scene b) 3 scenes Induce a fatal order failure of part (b) Check success product generation, and check for correct order tracking and failure notification to DORRAN and User	EC	1474
SM_5B_02	140	Shut down the DORRAN server and submit a L7 fixed scene acquire from the V0 Interface. Observe the ECS logs and confirm the logging of the request failure.	EC	1475
SM_5B_02	150	Shut down the LIM server and submit a L7 fixed scene acquire from the V0 Interface. Observe the ECS logs and confirm the logging of the shutdown & request failure	EC	1476
SM_5B_02	160	Show that ECS can subset a daily volume of 110 scenes of Landsat 7 L0R data with the following breakdown: • 50 fixed WRS scenes • 60 equivalent floating subset scenes with 3 requests being for products at least 3 scenes in length plus 2 requests being for all scenes within the subinterval	PC	1477

Test Input:	1. L70RF1/Browse/L70RF2 containing 20 scenes 2. L70RF1/Browse/L70RF2 containing 8 scenes 3. L70RF1/Browse/L70RF2 containing 37 scenes of polar data 4. Scene acquire requests using the EDG Client for all product iterations tested.
Test Output:	1. Cost and completion data at DORRAN terminal 2. Landsat Scene Acquires for all test iterations 3. Cost data – ECS Cost Algorithm comparisons 4. Error messages for error conditions tested 5. Pertinent log entries from SDSRV/HDFEOS Server ALOG and debug logs. 6. Data successfully placed in the Pull Area or on Tape when appropriate
Test Configuration:	1. Standard VATC Configuration – All Servers Running. 2. Test must be run in isolation to capture log output data. 3. No other simultaneous testing or operations on the mode. 4. Connection with DORRAN at EDC. 5. SDSRV (HDFEOS), DDIST, STMGT, DMS, CLS 6. t1acs03, t1wkg01, t1dps01, t1acg01, t1drg01, t1ins01 7. V0 Web Client

21. Landsat-7 Error Handling

Test Procedure No.:	**5B08050**	
Title:	Landsat-7 Error Handling	
Objective:	The objective of this test is to demonstrate the ability of the system to handle and manipulate Landsat-7 Format-1 and Format-2 unmerged and orphaned data sets through the systems operators interface. Specifically the test will exercise the following: ➢ Demonstrate capability to sort and list unmerged subinterval and scenes ➢ Initiate merging of unmerged subintervals and scenes ➢ Merge a single subinterval format for which a scene was too short ➢ Delete unmatched scenes for a single subinterval formal for which a scene was too short ➢ Select and promote orphaned subinterval formats and scenes ➢ Select and delete from archive any unmerged subintervals and scenes ➢ Demerge L70R granules to F1 & F2 collections ➢ Handle database conflicts during merge, demerge, or update activities, if they exist ➢ Back-out incomplete changes if failures occur. In addition, this test will exercise the Ingest Subsystem to ingest Landsat-7 data to be used in subsequent acquires.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
SM_5B_03	10	Run the analysis script to establish a list of unmerged subintervals and scenes	FC	
SM_5B_03	20	Select 2 matching subinterval formats (1&2), and from the command line initiate subinterval and scene merging	FC	
SM_5B_03	30	Select a single subinterval format for which Subinterval merging has been successful, but scene merging is incomplete because one of the formats was too short. From the command line initiate subsidiary subinterval and scene merging	FC	
SM_5B_03	40	Select a single subinterval format for which Subinterval merging has been successful, but scene merging is incomplete because one of the formats was too short. From the command line, delete the unmatched scenes from the archive.	FC	

SM_5B_03	50	Select and promote an Orphaned Subinterval format and its scenes to the merged L0R and WRS collections Select and promote orphaned scenes (subinterval merging was successful) the the merged WRS collection	FC	
SM_5B_03	60	Select and delete from the archive unmerged Format 1 & Format 2 Subintervals and scenes	FC	
SM_5B_03	70	Select a merged L70R granule and demerge it and its scenes into the F1 & F2 collections.	FC	
SM_5B_03	80	Correctly handle database access conflicts with automated operations during database update activities (merge, demerge, & delete)	EC	
SM_5B_03	90	Correctly handle back-out of incomplete changes if either SDSRV or archive components fail during merge, de-merge or delete operations	EC	

Test Input:	• Landsat-7 subinterval data (L70RF1, Browse, L70RF2) where the subinterval combines, but the scene combining is incomplete due to one of the formats being too short • Multiple Landsat-7 LPS subinterval data granules (L70RF1, Browse, L70RF2) where the subinterval/scenes do not combine • Landsat-7 LPS subinterval data (L70RF1, Browse, L70RF2) where the subinterval/scenes do not combine, and will error out when forced merge attempts are made • Query requests • Acquire requests input via the User interface GUI (V0 Web Client).
Test Output:	• Unmerged scenes • Merged F1 & F2 data • Merged orphan subinterval scenes • Orphaned scenes in WRS collection • Merged subinterval data of improper length • Deleted F1 & F2 files • Demerged L70R data. • Query results
Test Configuration:	• Standard VATC Configuration – All Servers Running • Test must be run in isolation to capture log output data • No other simultaneous testing or operations on the mode • Connection with DORRAN at EDC • SDSRV (HDFEOS), DDIST, STMGT, DMS, CLS • t1acs03, t1wkg01, t1dps01, t1acg01, t1drg01, t1ins01 • V0 Web Client

22. Java DAR Tool

Test Procedure No.:	5B10070	
Title:	Java DAR Tool	
Objective:	This test case will verify that the JDT user can submit a search request and obtain results displayed in a textual mode. The tester will exercise all textual and graphical display options. The searches will be made using specific options specified in the functional criteria. The textual and graphical responses of the DAR search request will contain the information specified in the functional criteria. The test will verify that the graphical search results are consistent with the textual search results, and contain at a minimum the information listed in the specific criteria and that the graphical display contains the background references listed in the specific criteria. This test case will verify that the parameters of a DAR copy action of search result can be used to create a new DAR. The test will verify that the searches and search results can be deleted by the ECS user. The test will verify that the correct error responses are displayed when the search request times out, obtains no valid responses, or obtains a number of responses that exceeds the search response parameters.	

Criteria Mapping

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
SM_5B_04	130	2) Display DAR scene estimates and resource estimates.	FC	185
SM_5B_04	10	Create and submit a general xAR Search by Attributes	FC	1404
SM_5B_04	20	Inspect xAR Search Results graphical display – Confirm that areas of interest (AOIs) can be displayed with xAR ID & successfully observed scenes with cloud cover by quadrant, on a spatial map. Additional annotations include: scene ID, Maximum acceptable cloud coverage, date observed and lat/long of scenes. Exercise all display options.	FC	1405
SM_5B_04	30	Confirm that the graphical display contains the following background references: 1. land/oceans, 2. major lakes and rivers, 3. mountain ranges, 4. volcanoes, 5. major highways and railroads, 6. urban areas, and 7. political boundaries.	FC	1406

SM_5B_04	40	Display search results textually – check for consistency with the graphical display – check for the following information: a) xAR status b) xAR temporal and spatial bounds c) xAR type d) xAR requestor (user ID) e) xAR contents f) xAR AOIs overlaid with the geographical extent of the status search area (AOS - Area of Search). g) xAR acquired scenes	FC	1407
SM_5B_04	50	Copy Results of a xAR search to a new DAR	FC	1408
SM_5B_04	60	Create and submit several xAR searches utilizing the following specification options: a) AOS Spatial Constraints b) Temporal Constraints c) Coverage Constraints d) Geometry Constraints e) Priority Constraints f) By DAR ID (this is exclusive of all other constraints)	FC	1409
SM_5B_04	70	Submit and delete a xAR search	FC	1410
SM_5B_04	80	Submit a xAR search and delete the returned results	FC	1411
SM_5B_04	90	Perform a xAR search time-out test to view correct behavior of the JDT client	EC	1412
SM_5B_04	100	Confirm that JDT handles results set overload conditions (too many hits)	EC	1413
SM_5B_04	110	Confirm that JDT handles a zero hit condition	EC	1414
SM_5B_04	120	Show the system can respond to an ASTER DAR status request in 13 seconds. This is in accordance with Table 7-1 of the F&PRS. The 13 seconds is the ECS response time only and does not include the time taken by the ASTER GDS or the network delays in communicating with the GDS.	PC	1415

Test Input:	• DAR • DAR search • Copy command • Delete DAR search • Deletes DAR search result
Test Output:	• DAR submittal reply • DAR search results textual and graphical display • DAR search status • Copy command confirmation message • Delete search confirmation message • Delete results confirmation message • Search timeout error message • Search Zero response message • Search responses exceed parameter limit error message
Test Configuration:	The following are required: -CLS Jess and Foliod Proxy servers running on the CLS primary server -CSS Mojo, Subscription, and DAR Comm Gateway servers running on the CSS primary server -MSS User Registration server (EcMsAcRegUserSrvr) running on the MSS primary server -IOS Advertising Server (EcIoAdServer) running on the IOS primary server -There must be a DAR approved user profile account -DARMain ASTER Simulator for the test mode must be started -Netscape Enterprise Server with the Java Dar Tool Web Page -Client workstation with Netscape Browser

23. ASTER Browse

Test Procedure No.:	5B12040	
Title:	ASTER Browse	
Objective:	This test case verifies the Science Data Server (SDSRV) capability to associate Browse granules for ASTER L1A data granules with ASTER L1B and DEM products derived from that L1A granule during the insert process. In addition, it verifies that the SDSRV can associate Browse granules for existing ASTER L1A granules with all existing ASTER L1B and DEM products derived from each L1A granule by use of a database ASTER Browse Association script. The following ASTER data (ASTER L1A with Browse, ASTER L1A without Browse, ASTER L1B and ASTER DEM) will be preloaded into the SDSRV Inventory Database prior to installing the 5B baselined version of the code. The ASTER Browse Association script will be executed twice, once for an error check and the second to complete all appropriate ASTER Browse associations after the installation of the 5B baselined version of the code. ASTER data will then be ingested, one granule at a time and in various order, in accordance with the functional criteria being verified. This allows for testing various associations of granules being ingested with those already residing in the Inventory. ASTER L1A, Browse, and ASTER_L1B data is ingested using the D3 Media Ingest capability, while the ASTER DEM data is ingested using the SIPS interface. Two parameters, SingleDateTime (which is a combination of CalendarDate and TimeOfDay) and ASTERMapProjection will be used to associate the L1A, L1B and DEM granules and the DsMdBrowseGranuleXref table will be used to associate the L1B and DEM granules with the browse granule (this table is already used to associate the L1A granule with its browse granule).	

Criteria Mapping

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
RM_5B_14	10	Convert the preloaded inventory such that the ASTER L1B and DEM granules are associated with the BROWSE from the corresponding ASTER L1A granule. Verify the following: • L1B have been correctly associated with a BROWSE • DEM have been correctly associated with its matching BROWSE • DEM and L1B without matching L1A have not been associated with a BROWSE • The DEM and L1B that match the L1A that has no BROWSE do not have an associated BROWSE	FC	

RM_5B_14	20	Insert an ASTER L1A granule with BROWSE that matches at least one L1B and DEM that previously had no matching L1A. Verify that the BROWSE is correctly associated with the L1B and DEM.	FC	
RM_5B_14	30	Insert an ASTER L1A granule with BROWSE that matches no existing ASTER L1B and DEM. Then insert the corresponding ASTER L1B and DEM. Verify that the BROWSE is correctly associated with the L1B and DEM.	FC	
RM_5B_14	40	Insert an ASTER L1B and DEM granule for which no matching ASTER L1A exists in the inventory. Verify that they insert correctly and are not associated with a BROWSE.	FC	
RM_5B_14	50	Interrupt the process of associating ASTER L1B and DEM granules in the pre-existing inventory with the BROWSE granules from their corresponding ASTER L1A. Demonstrate that the process can be restarted.	EC	

Test Input:	• 1 D3 tape for ingest, containing 4 granules of ASTA_L1A w/Browse, 4 granule of AST_L1A without/Browse, 12 granules of AST_L1B and a PMPDR • 1 PDR for ingest, containing 12 granules of AST14DEM • 2 D3 tapes for ingest, each containing a granule of AST_L1A data w/Browse and a PMPDR • 2 D3 tapes for ingest, each containing a granule of AST_L1B data and a PMPDR • 2 PDRs for ingest, each containing a granule of AST14DEM data
Test Output:	• Ingest GUI Monitor/Control Display • Archive Directory Listings • SDSRV Database Queries
Test Configuration:	• 5B baselined code • Servers (EcInGUI, EcInPolling, EcInReqMgr, EcInGran, EcDsStD3Server, EcDsStStagingDiskServer, EcDsStIngestFtpServer, EcDsScienceDataServer, EcDsStArchiveServer, EcIoAdServer) • Hardware (t1icg01, t1acg01, t1drg01, t1acs02, t1acs03, t1dps01, t1ins01)

24. Generate Reports Using IQ/SQR Tools

Test Procedure No.:	5B08060	
Title:	Generate Reports Using IQ/SQR Tools	
Objective:	The purpose of this test is to verify that Intelligent Query (IQ) and SQL Query Report (SQR) tools can connect to INS, PDPS, SDSRV, DDIST, MSS Accountability, and IDG Configuration Registry databases. Both IQ and SQR tools are used to retrieve a list of granules, products, orders, or parameters from the applicable database. A copy of one of the databases is created, and a report is generated from the newly created database using the IQ and SQR tools.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
EN_5B_01	010	Bring up the IQ tool and verify that the following databases are visible: INS, PDPS, SDSRV, DDIST, MSS Accountability, IDG Configuration Registry.	FC	
EN_5B_01	020	Bring up the SQR tool and verify that the following databases are visible: INS, PDPS, SDSRV, DDIST, MSS Accountability, IDG Configuration Registry.	FC	
EN_5B_01	030	For INS show that both IQ and SQR can retrieve a list of recently ingested granules	FC	
EN_5B_01	040	For PDPS show that both IQ and SQR can retrieve a list of recently produced granules	FC	
EN_5B_01	050	For SDSRV show that both IQ and SQR can retrieve a list of products produced using a given granule as input	FC	
EN_5B_01	060	For DDIST show that both IQ and SQR can retrieve a list of products pending distribution	FC	
EN_5B_01	070	For Accountability show that IQ and SQR can retrieve a list of outstanding orders	FC	
EN_5B_01	080	For the Configuration Registry show that IQ and SQR can retrieve the parameters for a given application	FC	

EN_5B_01	090	Create a copy of one of the databases used in generating a report. Bring up the IQ tool and verify that the newly created database is visible. From IQ, generate a simple report using the newly created database.	FC	
EN_5B_01	100	Bring up the SQR tool and verify that the newly created database is visible. From SQR, generate a simple report using the newly created database.	FC	
Test Input:	• N/A • N/A			
Test Output:	• IQ report names: Ingest_<mode>.iq, pdps_<mode>.iq, EcDsScienceDataSerever1_<mode>.iq, stmgtdb1_<mode>.iq, mss_acct_db_<mode>.iq, SubServer_<mode>.iq • SQR report names: Ingest_<mode>.sqr, pdps_<mode>.sqr, EcDsScienceDataSerever1_<mode>.sqr, stmgtdb1_<mode>.sqr, mss_acct_db_<mode>.sqr, SubServer_<mode>.sqr			
Test Configuration:	• t1icg01_srvr, t1pls01_srvr, t1acg01_srvr, t1mss06_srvr, t1ins02_srvr • SQL Servers, IQ tool, SQR tool.			

25. Configuration Registry

Test Procedure No.:	5B10090	
Title:	Configuration Registry	
Objective:	The purpose of this test is to verify that the Configuration Registry is able to load configuration data from configuration files or from the Registry Server, and then create a new custom configuration file. This test also confirms that the Registry GUI can provide the capability to view a hierarchical list of attribute trees and rename, add, delete, and modify the tree attributes or tree node. The test will consist of 5 scenarios. • Scenario 1 will verify that the Configuration Registry can restore the registry database from a registry database backup file. • Scenario 2 will demonstrate that the Configuration Registry can import the contents of a configuration file into the registry database. • Scenario 3 will demonstrate that the Configuration Registry is able to load configuration data from a configuration file or from the Registry Server • Scenario 4 will confirm that the Registry Service can communicate directly with the Registry database. • Scenario 5 will verify that the Registry database is correctly updated through inputs entered from the Registry GUI.	

Ticket Id	Criteria Id	Criteria Statement	Criteria Type	Criteria Key
HA_5B_01	10	Demonstrate the existing .CFG file mechanism still works: make sure that the contents of the .CFG file differ from the contents of the registry database, start an ECS server, and confirm that the logged attributes match the .CFG file.	FC	
HA_5B_01	20	Use the importation tool to import the contents of a .CFG file into the registry database. Use the registry GUI to confirm that the contents have been imported correctly.	FC	
HA_5B_01	30	Confirm that configuration parameters can be obtained from the registry: make sure that there is no .CFG file in the CUSTOM/cfg directory, bring up an ECS server, and verify that the logged parameters match the contents of the registry database for the server and the host. At least one of the parameters must be specified in the database via the indirection mechanism (@path), and at least one of the parameters must be a list of values.	FC	

HA_5B_01	40	Verify that the registry GUI can perform the following operations: 1. copy an attribute tree, assigning it a new name 2. associate an attribute tree with a mode 3. move the subtree of attributes associated with a server to another tree 4. rename a subtree 5. delete a subtree 6. modify the value of a parameter, including entering a change description 7. add a new parameter to the subtree for a server 8. add descriptive info for a parameter, including text description of the value, min/max values, and datatype) 9. replicate a subtree of an attribute tree to another location within the same attribute tree 10. replicate a subtree of an attribute tree to a location within another Attribute Tree.	FC	
HA_5B_01	50	Verify that the database can be restored from an on-disk backup taken within the previous two days.	FC	
HA_5B_01	60	Use the command-line registry query tool to verify that all parameters in a subtree are returned when the path of the subtree ends with a wildcard (*).	FC	
HA_5B_01	70	Verify that the registry server will accept the Sybase server name, username, password, and mode from the command line: 1. achieve a successful db login 2. change each parameter in turn and verify that the registry server does not login successfully.	FC	
HA_5B_01	80	Verify that separate instances of the registry server and database can run in separate modes: 1. bring up server 1 and database 1 2. bring up server 2 and database 2 in another mode 3. verify that database 1 changes made by server 1 are not reflected in database 2, and vice versa.	FC	

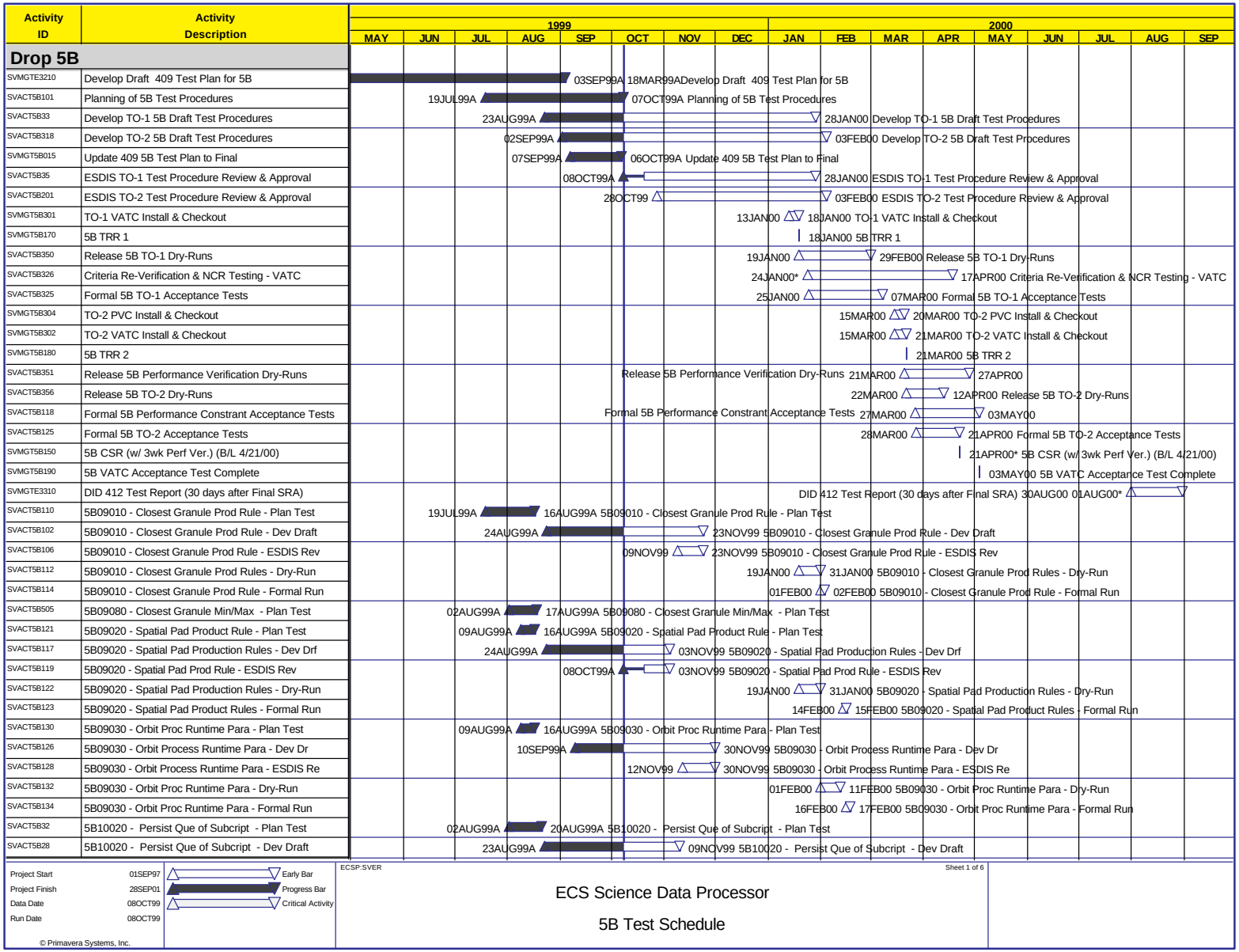
Test Input:	• The original Configuration file • Input from the Keyboard to be filled in on the Registry GUI • Registry database backup file which will be used to restore the Registry database
Test Output:	• A text file which will contain logged parameters • Log files • Information display on Registry GUI screen
Test Configuration:	• t1ins02, t1dms02, t1acs03 • Registry Server, Registry GUI, SQL servers

26. NCEP03 Data Ingest and Archive

Test Procedure No.:	**5B09080**			
Title:	NCEP03 Data Ingest and Archive			
Objective:	This test demonstrates the ability to ingest and archive Surface Flux Product (NCEP03) ancillary data from the National Centers for Environmental Predictions (NCEP) of the National Oceanic and Atmospheric Administration (NOAA). The NCEP03 data will be transferred, data preprocessing will be performed and insert of the data into the archive and updating the SDSRV Inventory database with core metadata will be checked. The ingest of the NCEP03 data uses the Polling with Delivery Record Interface protocol. A polling process at the ECS DAAC polls, at a pre-set interval, a predetermined location for new Product Delivery Records (PDRs) for ingest. Upon detection of new PDRs, the ECS DAAC ftp's the data to a Working Storage location that has been allocated. Core metadata is then extracted and the ancillary data is converted to an ECS acceptable format. The Science Data Server (SDSRV) UR for the particular data type being ingested is retrieved from memory and an insert request is submitted to the SDSRV for data archiving. The insert request is accepted and validated by the SDSRV. The core metadata is validated and the ancillary data is placed into the appropriate archive location. The Inventory database is then updated with the core metadata and a PAN is generated and E-mailed to the data provider. The Ingest database is updated during the ingest process to reflect the status of the Ingest Requests. This information can be viewed using Monitor/Control function (real-time) display on the Ingest GUI			
SM_5B_01	20	Ingest NCEP03 (Surface Flux Product) via polling with PDR protocol • Initiate an Insert of an NCEP03 granule via Polling with PDR protocol • Check for successful ingest/archive of file in native (GRIB) format	FC	
Test Input:	➢ 1 PDR for ingest, containing 1 granule of NCEP03 data			
Test Output:	• Ingest GUI Monitor/Control Display • Archive Directory Listings • SDSRV Database Queries			
Test Configuration:	• 5B baselined code • Servers (EcInGUI, EcInPolling, EcInReqMgr, EcInGran, EcDsStStagingDiskServer, EcDsStIngestFtpServer, EcDsScienceDataServer, EcDsStArchiveServer, EcIoAdServer) • Hardware (t1icg01, t1acg01, t1drg01, t1acs02, t1acs03, t1ins01)			

Appendix B. Primavera Schedule Listing

The Primavera (P3) Schedule for the Release 5B Test Program is attached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Activity Description
1999
2000
MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
Drop 5B
SVMGTE3210 Develop Draft 409 Test Plan for 5B
03SEP99A 18MAR99ADevelop Draft 409 Test Plan for 5B
SVACT5B101 Planning of 5B Test Procedures
19JUL99A 07OCT99A Planning of 5B Test Procedures
SVACT5B33 Develop TO-1 5B Draft Test Procedures
23AUG99A 28JAN00 Develop TO-1 5B Draft Test Procedures
SVACT5B318 Develop TO-2 5B Draft Test Procedures
02SEP99A 03FEB00 Develop TO-2 5B Draft Test Procedures
SVMGT5B015 Update 409 5B Test Plan to Final
07SEP99A 06OCT99A Update 409 5B Test Plan to Final
SVACT5B35 ESDIS TO-1 Test Procedure Review & Approval
08OCT99A 28JAN00 ESDIS TO-1 Test Procedure Review & Approval
SVACT5B201 ESDIS TO-2 Test Procedure Review & Approval
28OCT99 03FEB00 ESDIS TO-2 Test Procedure Review & Approval
SVMGT5B301 TO-1 VATC Install & Checkout
13JAN00 18JAN00 TO-1 VATC Install & Checkout
SVMGT5B170 5B TRR 1
18JAN00 5B TRR 1
SVACT5B350 Release 5B TO-1 Dry-Runs
19JAN00 29FEB00 Release 5B TO-1 Dry-Runs
SVACT5B326 Criteria Re-Verification & NCR Testing - VATC
24JAN00* 17APR00 Criteria Re-Verification & NCR Testing - VATC
SVACT5B325 Formal 5B TO-1 Acceptance Tests
25JAN00 07MAR00 Formal 5B TO-1 Acceptance Tests
SVMGT5B304 TO-2 PVC Install & Checkout
15MAR00 20MAR00 TO-2 PVC Install & Checkout
SVMGT5B302 TO-2 VATC Install & Checkout
15MAR00 21MAR00 TO-2 VATC Install & Checkout
SVMGT5B180 5B TRR 2
21MAR00 5B TRR 2
SVACT5B351 Release 5B Performance Verification Dry-Runs
Release 5B Performance Verification Dry-Runs 21MAR00 27APR00
SVACT5B356 Release 5B TO-2 Dry-Runs
22MAR00 12APR00 Release 5B TO-2 Dry-Runs
SVACT5B118 Formal 5B Performance Constrant Acceptance Tests
Formal 5B Performance Constrant Acceptance Tests 27MAR00 03MAY00
SVACT5B125 Formal 5B TO-2 Acceptance Tests
28MAR00 21APR00 Formal 5B TO-2 Acceptance Tests
SVMGT5B150 5B CSR (w/ 3wk Perf Ver.) (B/L 4/21/00)
21APR00* 5B CSR (w/ 3wk Perf Ver.) (B/L 4/21/00)
SVMGT5B190 5B VATC Acceptance Test Complete
03MAY00 5B VATC Acceptance Test Complete
SVMGTE3310 DID 412 Test Report (30 days after Final SRA)
DID 412 Test Report (30 days after Final SRA) 30AUG00 01AUG00*
SVACT5B110 5B09010 - Closest Granule Prod Rule - Plan Test
19JUL99A 16AUG99A 5B09010 - Closest Granule Prod Rule - Plan Test
SVACT5B102 5B09010 - Closest Granule Prod Rule - Dev Draft
24AUG99A 23NOV99 5B09010 - Closest Granule Prod Rule - Dev Draft
SVACT5B106 5B09010 - Closest Granule Prod Rule - ESDIS Rev
09NOV99 23NOV99 5B09010 - Closest Granule Prod Rule - ESDIS Rev
SVACT5B112 5B09010 - Closest Granule Prod Rules - Dry-Run
19JAN00 31JAN00 5B09010 - Closest Granule Prod Rules - Dry-Run
SVACT5B114 5B09010 - Closest Granule Prod Rule - Formal Run
01FEB00 02FEB00 5B09010 - Closest Granule Prod Rule - Formal Run
SVACT5B505 5B09080 - Closest Granule Min/Max - Plan Test
02AUG99A 17AUG99A 5B09080 - Closest Granule Min/Max - Plan Test
SVACT5B121 5B09020 - Spatial Pad Product Rule - Plan Test
09AUG99A 16AUG99A 5B09020 - Spatial Pad Product Rule - Plan Test
SVACT5B117 5B09020 - Spatial Pad Production Rules - Dev Drf
24AUG99A 03NOV99 5B09020 - Spatial Pad Production Rules - Dev Drf
SVACT5B119 5B09020 - Spatial Pad Prod Rule - ESDIS Rev
08OCT99A 03NOV99 5B09020 - Spatial Pad Prod Rule - ESDIS Rev
SVACT5B122 5B09020 - Spatial Pad Production Rules - Dry-Run
19JAN00 31JAN00 5B09020 - Spatial Pad Production Rules - Dry-Run
SVACT5B123 5B09020 - Spatial Pad Product Rules - Formal Run
14FEB00 15FEB00 5B09020 - Spatial Pad Product Rules - Formal Run
SVACT5B130 5B09030 - Orbit Proc Runtime Para - Plan Test
09AUG99A 16AUG99A 5B09030 - Orbit Proc Runtime Para - Plan Test
SVACT5B126 5B09030 - Orbit Process Runtime Para - Dev Dr
10SEP99A 30NOV99 5B09030 - Orbit Process Runtime Para - Dev Dr
SVACT5B128 5B09030 - Orbit Process Runtime Para - ESDIS Re
12NOV99 30NOV99 5B09030 - Orbit Process Runtime Para - ESDIS Re
SVACT5B132 5B09030 - Orbit Proc Runtime Para - Dry-Run
01FEB00 11FEB00 5B09030 - Orbit Proc Runtime Para - Dry-Run
SVACT5B134 5B09030 - Orbit Proc Runtime Para - Formal Run
16FEB00 17FEB00 5B09030 - Orbit Proc Runtime Para - Formal Run
SVACT5B32 5B10020 - Persist Que of Subcript - Plan Test
02AUG99A 20AUG99A 5B10020 - Persist Que of Subcript - Plan Test
SVACT5B28 5B10020 - Persist Que of Subcript - Dev Draft
23AUG99A 09NOV99 5B10020 - Persist Que of Subcript - Dev Draft
Project Start 01SEP97
Project Finish 28SEP01
Data Date 08OCT99
Run Date 08OCT99
Early Bar
Progress Bar
Critical Activity
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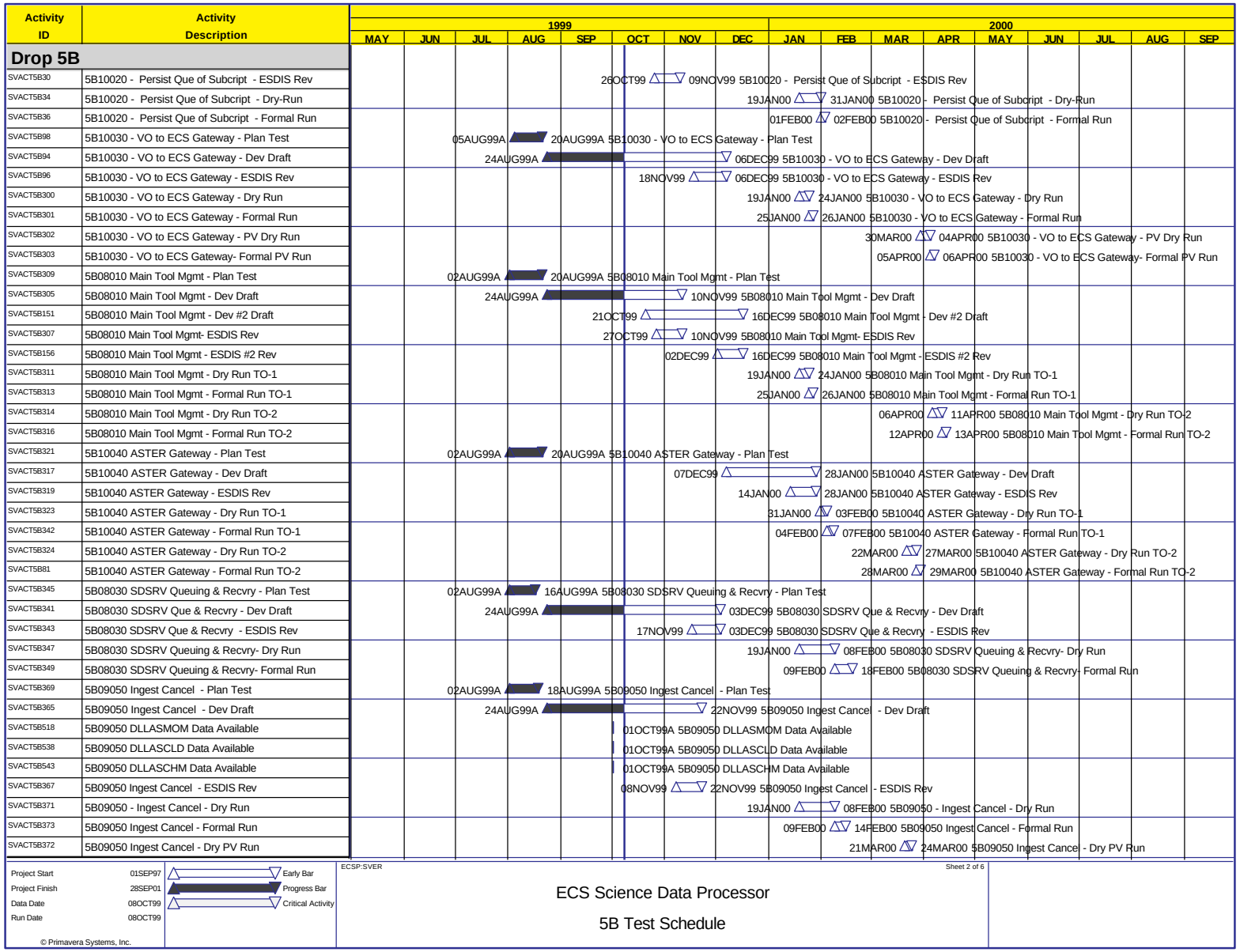
ECSP:SVER
Sheet 1 of 6
ECS Science Data Processor
5B Test Schedule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Activity Description
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MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
Drop 5B
SVACT5B30 5B10020 - Persist Que of Subcript - ESDIS Rev
SVACT5B34 5B10020 - Persist Que of Subcript - Dry-Run
SVACT5B36 5B10020 - Persist Que of Subcript - Formal Run
SVACT5B98 5B10030 - VO to ECS Gateway - Plan Test
SVACT5B94 5B10030 - VO to ECS Gateway - Dev Draft
SVACT5B96 5B10030 - VO to ECS Gateway - ESDIS Rev
SVACT5B300 5B10030 - VO to ECS Gateway - Dry Run
SVACT5B301 5B10030 - VO to ECS Gateway - Formal Run
SVACT5B302 5B10030 - VO to ECS Gateway - PV Dry Run
SVACT5B303 5B10030 - VO to ECS Gateway- Formal PV Run
SVACT5B309 5B08010 Main Tool Mgmt - Plan Test
SVACT5B305 5B08010 Main Tool Mgmt - Dev Draft
SVACT5B151 5B08010 Main Tool Mgmt - Dev #2 Draft
SVACT5B307 5B08010 Main Tool Mgmt- ESDIS Rev
SVACT5B156 5B08010 Main Tool Mgmt - ESDIS #2 Rev
SVACT5B311 5B08010 Main Tool Mgmt - Dry Run TO-1
SVACT5B313 5B08010 Main Tool Mgmt - Formal Run TO-1
SVACT5B314 5B08010 Main Tool Mgmt - Dry Run TO-2
SVACT5B316 5B08010 Main Tool Mgmt - Formal Run TO-2
SVACT5B321 5B10040 ASTER Gateway - Plan Test
SVACT5B317 5B10040 ASTER Gateway - Dev Draft
SVACT5B319 5B10040 ASTER Gateway - ESDIS Rev
SVACT5B323 5B10040 ASTER Gateway - Dry Run TO-1
SVACT5B342 5B10040 ASTER Gateway - Formal Run TO-1
SVACT5B324 5B10040 ASTER Gateway - Dry Run TO-2
SVACT5B81 5B10040 ASTER Gateway - Formal Run TO-2
SVACT5B345 5B08030 SDSRV Queuing & Recvry - Plan Test
SVACT5B341 5B08030 SDSRV Que & Recvry - Dev Draft
SVACT5B343 5B08030 SDSRV Que & Recvry - ESDIS Rev
SVACT5B347 5B08030 SDSRV Queuing & Recvry- Dry Run
SVACT5B349 5B08030 SDSRV Queuing & Recvry- Formal Run
SVACT5B369 5B09050 Ingest Cancel - Plan Test
SVACT5B365 5B09050 Ingest Cancel - Dev Draft
SVACT5B518 5B09050 DLLASMOM Data Available
SVACT5B538 5B09050 DLLASCLD Data Available
SVACT5B543 5B09050 DLLASCHM Data Available
SVACT5B367 5B09050 Ingest Cancel - ESDIS Rev
SVACT5B371 5B09050 - Ingest Cancel - Dry Run
SVACT5B373 5B09050 Ingest Cancel - Formal Run
SVACT5B372 5B09050 Ingest Cancel - Dry PV Run
26OCT99 09NOV99 5B10020 - Persist Que of Subcript - ESDIS Rev
19JAN00 31JAN00 5B10020 - Persist Que of Subcript - Dry-Run
01FEB00 02FEB00 5B10020 - Persist Que of Subcript - Formal Run
05AUG99A 20AUG99A 5B10030 - VO to ECS Gateway - Plan Test
24AUG99A 06DEC99 5B10030 - VO to ECS Gateway - Dev Draft
18NOV99 06DEC99 5B10030 - VO to ECS Gateway - ESDIS Rev
19JAN00 24JAN00 5B10030 - VO to ECS Gateway - Dry Run
25JAN00 26JAN00 5B10030 - VO to ECS Gateway - Formal Run
30MAR00 04APR00 5B10030 - VO to ECS Gateway - PV Dry Run
05APR00 06APR00 5B10030 - VO to ECS Gateway- Formal PV Run
02AUG99A 20AUG99A 5B08010 Main Tool Mgmt - Plan Test
24AUG99A 10NOV99 5B08010 Main Tool Mgmt - Dev Draft
21OCT99 16DEC99 5B08010 Main Tool Mgmt - Dev #2 Draft
27OCT99 10NOV99 5B08010 Main Tool Mgmt- ESDIS Rev
02DEC99 16DEC99 5B08010 Main Tool Mgmt - ESDIS #2 Rev
19JAN00 24JAN00 5B08010 Main Tool Mgmt - Dry Run TO-1
25JAN00 26JAN00 5B08010 Main Tool Mgmt - Formal Run TO-1
06APR00 11APR00 5B08010 Main Tool Mgmt - Dry Run TO-2
12APR00 13APR00 5B08010 Main Tool Mgmt - Formal Run TO-2
02AUG99A 20AUG99A 5B10040 ASTER Gateway - Plan Test
07DEC99 28JAN00 5B10040 ASTER Gateway - Dev Draft
14JAN00 28JAN00 5B10040 ASTER Gateway - ESDIS Rev
31JAN00 03FEB00 5B10040 ASTER Gateway - Dry Run TO-1
04FEB00 07FEB00 5B10040 ASTER Gateway - Formal Run TO-1
22MAR00 27MAR00 5B10040 ASTER Gateway - Dry Run TO-2
28MAR00 29MAR00 5B10040 ASTER Gateway - Formal Run TO-2
02AUG99A 16AUG99A 5B08030 SDSRV Queuing & Recvry - Plan Test
24AUG99A 03DEC99 5B08030 SDSRV Que & Recvry - Dev Draft
17NOV99 03DEC99 5B08030 SDSRV Que & Recvry - ESDIS Rev
19JAN00 08FEB00 5B08030 SDSRV Queuing & Recvry- Dry Run
09FEB00 18FEB00 5B08030 SDSRV Queuing & Recvry- Formal Run
02AUG99A 18AUG99A 5B09050 Ingest Cancel - Plan Test
24AUG99A 22NOV99 5B09050 Ingest Cancel - Dev Draft
01OCT99A 5B09050 DLLASMOM Data Available
01OCT99A 5B09050 DLLASCLD Data Available
01OCT99A 5B09050 DLLASCHM Data Available
08NOV99 22NOV99 5B09050 Ingest Cancel - ESDIS Rev
19JAN00 08FEB00 5B09050 - Ingest Cancel - Dry Run
09FEB00 14FEB00 5B09050 Ingest Cancel - Formal Run
21MAR00 24MAR00 5B09050 Ingest Cancel - Dry PV Run
Project Start 01SEP97
Project Finish 28SEP01
Data Date 08OCT99
Run Date 08OCT99
Early Bar
Progress Bar
Critical Activity
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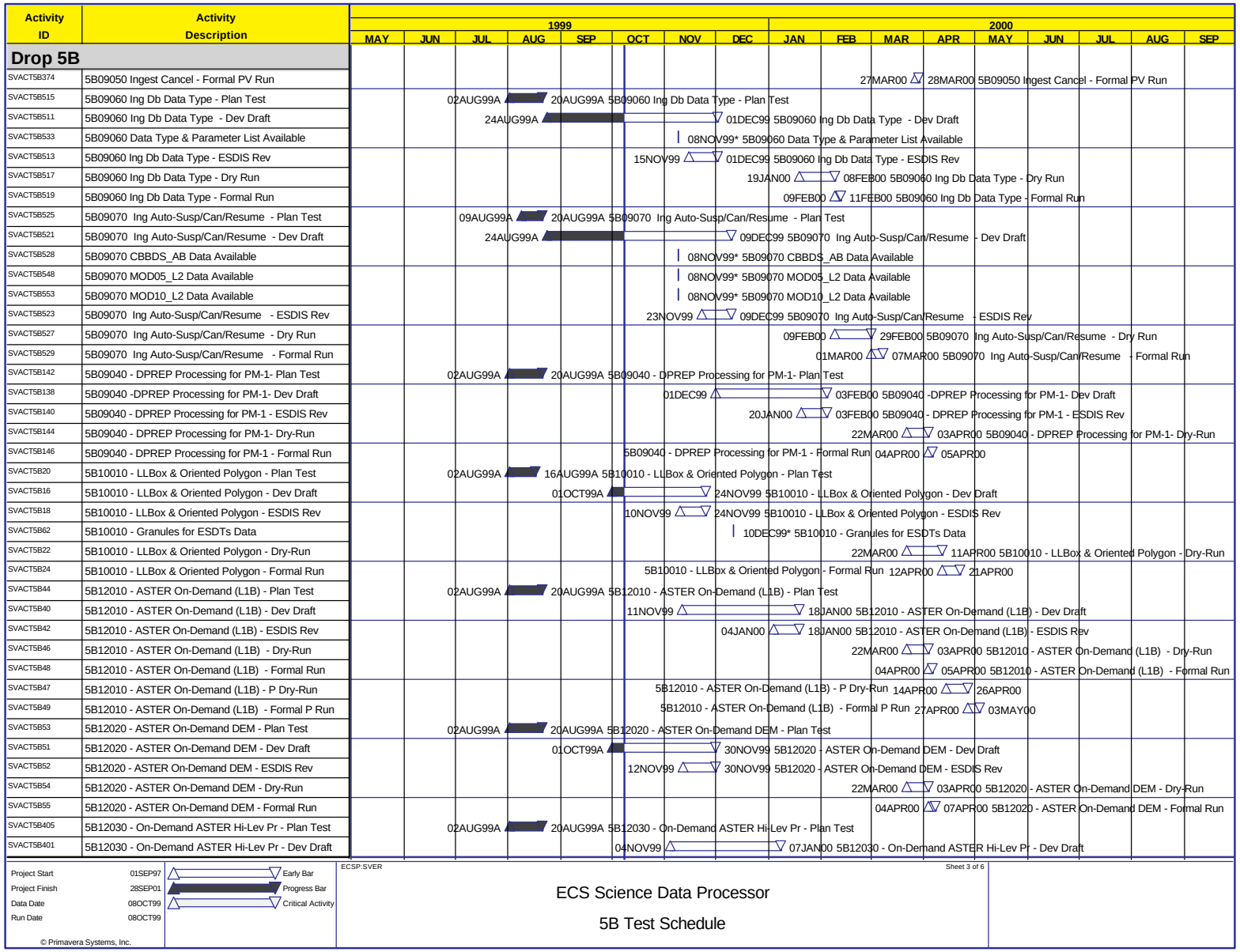
Sheet 2 of 6
ECS Science Data Processor
5B Test Schedule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Activity Description
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27MAR00 28MAR00 5B09050 Ingest Cancel - Formal PV Run
SVACT5B515 5B09060 Ing Db Data Type - Plan Test
02AUG99A 20AUG99A 5B09060 Ing Db Data Type - Plan Test
SVACT5B511 5B09060 Ing Db Data Type - Dev Draft
24AUG99A 01DEC99 5B09060 Ing Db Data Type - Dev Draft
SVACT5B533 5B09060 Data Type & Parameter List Available
08NOV99* 5B09060 Data Type & Parameter List Available
SVACT5B513 5B09060 Ing Db Data Type - ESDIS Rev
15NOV99 01DEC99 5B09060 Ing Db Data Type - ESDIS Rev
SVACT5B517 5B09060 Ing Db Data Type - Dry Run
19JAN00 08FEB00 5B09060 Ing Db Data Type - Dry Run
SVACT5B519 5B09060 Ing Db Data Type - Formal Run
09FEB00 11FEB00 5B09060 Ing Db Data Type - Formal Run
SVACT5B525 5B09070 Ing Auto-Susp/Can/Resume - Plan Test
09AUG99A 20AUG99A 5B09070 Ing Auto-Susp/Can/Resume - Plan Test
SVACT5B521 5B09070 Ing Auto-Susp/Can/Resume - Dev Draft
24AUG99A 09DEC99 5B09070 Ing Auto-Susp/Can/Resume - Dev Draft
SVACT5B528 5B09070 CBBDS_AB Data Available
08NOV99* 5B09070 CBBDS_AB Data Available
SVACT5B548 5B09070 MOD05_L2 Data Available
08NOV99* 5B09070 MOD05_L2 Data Available
SVACT5B553 5B09070 MOD10_L2 Data Available
08NOV99* 5B09070 MOD10_L2 Data Available
SVACT5B523 5B09070 Ing Auto-Susp/Can/Resume - ESDIS Rev
23NOV99 09DEC99 5B09070 Ing Auto-Susp/Can/Resume - ESDIS Rev
SVACT5B527 5B09070 Ing Auto-Susp/Can/Resume - Dry Run
09FEB00 29FEB00 5B09070 Ing Auto-Susp/Can/Resume - Dry Run
SVACT5B529 5B09070 Ing Auto-Susp/Can/Resume - Formal Run
01MAR00 07MAR00 5B09070 Ing Auto-Susp/Can/Resume - Formal Run
SVACT5B142 5B09040 - DPREP Processing for PM-1- Plan Test
02AUG99A 20AUG99A 5B09040 - DPREP Processing for PM-1- Plan Test
SVACT5B138 5B09040 -DPREP Processing for PM-1- Dev Draft
01DEC99 03FEB00 5B09040 -DPREP Processing for PM-1- Dev Draft
SVACT5B140 5B09040 - DPREP Processing for PM-1 - ESDIS Rev
20JAN00 03FEB00 5B09040 - DPREP Processing for PM-1 - ESDIS Rev
SVACT5B144 5B09040 - DPREP Processing for PM-1- Dry-Run
22MAR00 03APR00 5B09040 - DPREP Processing for PM-1- Dry-Run
SVACT5B146 5B09040 - DPREP Processing for PM-1 - Formal Run
5B09040 - DPREP Processing for PM-1 - Formal Run 04APR00 05APR00
SVACT5B20 5B10010 - LLBox & Oriented Polygon - Plan Test
02AUG99A 16AUG99A 5B10010 - LLBox & Oriented Polygon - Plan Test
SVACT5B16 5B10010 - LLBox & Oriented Polygon - Dev Draft
01OCT99A 24NOV99 5B10010 - LLBox & Oriented Polygon - Dev Draft
SVACT5B18 5B10010 - LLBox & Oriented Polygon - ESDIS Rev
10NOV99 24NOV99 5B10010 - LLBox & Oriented Polygon - ESDIS Rev
SVACT5B62 5B10010 - Granules for ESDTs Data
10DEC99* 5B10010 - Granules for ESDTs Data
SVACT5B22 5B10010 - LLBox & Oriented Polygon - Dry-Run
22MAR00 11APR00 5B10010 - LLBox & Oriented Polygon - Dry-Run
SVACT5B24 5B10010 - LLBox & Oriented Polygon - Formal Run
5B10010 - LLBox & Oriented Polygon - Formal Run 12APR00 21APR00
SVACT5B44 5B12010 - ASTER On-Demand (L1B) - Plan Test
02AUG99A 20AUG99A 5B12010 - ASTER On-Demand (L1B) - Plan Test
SVACT5B40 5B12010 - ASTER On-Demand (L1B) - Dev Draft
11NOV99 18JAN00 5B12010 - ASTER On-Demand (L1B) - Dev Draft
SVACT5B42 5B12010 - ASTER On-Demand (L1B) - ESDIS Rev
04JAN00 18JAN00 5B12010 - ASTER On-Demand (L1B) - ESDIS Rev
SVACT5B46 5B12010 - ASTER On-Demand (L1B) - Dry-Run
22MAR00 03APR00 5B12010 - ASTER On-Demand (L1B) - Dry-Run
SVACT5B48 5B12010 - ASTER On-Demand (L1B) - Formal Run
04APR00 05APR00 5B12010 - ASTER On-Demand (L1B) - Formal Run
SVACT5B47 5B12010 - ASTER On-Demand (L1B) - P Dry-Run
5B12010 - ASTER On-Demand (L1B) - P Dry-Run 14APR00 26APR00
SVACT5B49 5B12010 - ASTER On-Demand (L1B) - Formal P Run
5B12010 - ASTER On-Demand (L1B) - Formal P Run 27APR00 03MAY00
SVACT5B53 5B12020 - ASTER On-Demand DEM - Plan Test
02AUG99A 20AUG99A 5B12020 - ASTER On-Demand DEM - Plan Test
SVACT5B51 5B12020 - ASTER On-Demand DEM - Dev Draft
01OCT99A 30NOV99 5B12020 - ASTER On-Demand DEM - Dev Draft
SVACT5B52 5B12020 - ASTER On-Demand DEM - ESDIS Rev
12NOV99 30NOV99 5B12020 - ASTER On-Demand DEM - ESDIS Rev
SVACT5B54 5B12020 - ASTER On-Demand DEM - Dry-Run
22MAR00 03APR00 5B12020 - ASTER On-Demand DEM - Dry-Run
SVACT5B55 5B12020 - ASTER On-Demand DEM - Formal Run
04APR00 07APR00 5B12020 - ASTER On-Demand DEM - Formal Run
SVACT5B405 5B12030 - On-Demand ASTER Hi-Lev Pr - Plan Test
02AUG99A 20AUG99A 5B12030 - On-Demand ASTER Hi-Lev Pr - Plan Test
SVACT5B401 5B12030 - On-Demand ASTER Hi-Lev Pr - Dev Draft
04NOV99 07JAN00 5B12030 - On-Demand ASTER Hi-Lev Pr - Dev Draft
Project Start 01SEP97
Project Finish 28SEP01
Data Date 08OCT99
Run Date 08OCT99
Early Bar
Progress Bar
Critical Activity
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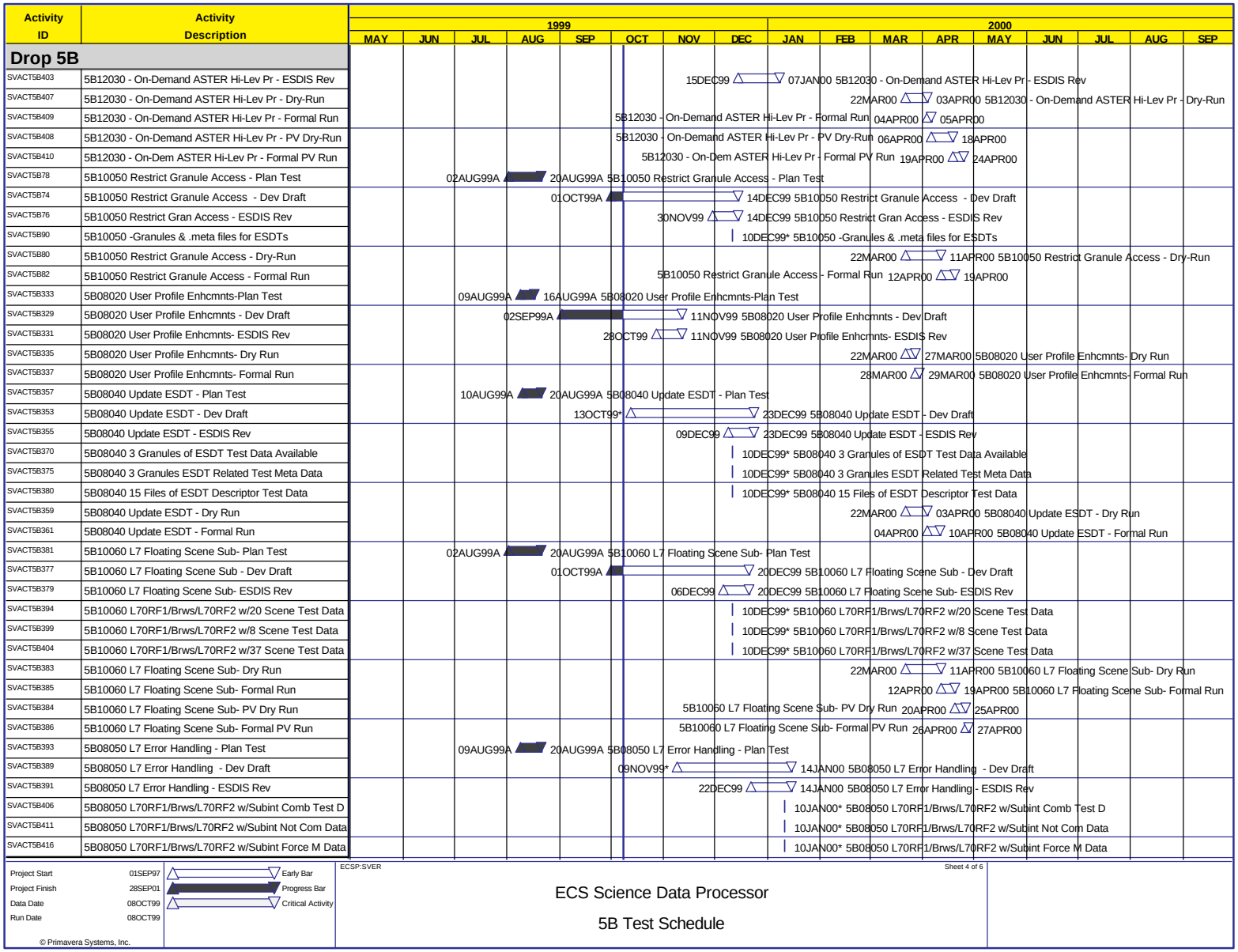
Sheet 3 of 6
ECS Science Data Processor
5B Test Schedule


Activity ID
Activity Description
1999
2000
MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
Drop 5B
SVACT5B403 5B12030 - On-Demand ASTER Hi-Lev Pr - ESDIS Rev
SVACT5B407 5B12030 - On-Demand ASTER Hi-Lev Pr - Dry-Run
SVACT5B409 5B12030 - On-Demand ASTER Hi-Lev Pr - Formal Run
SVACT5B408 5B12030 - On-Demand ASTER Hi-Lev Pr - PV Dry-Run
SVACT5B410 5B12030 - On-Dem ASTER Hi-Lev Pr - Formal PV Run
SVACT5B878 5B10050 Restrict Granule Access - Plan Test
SVACT5B74 5B10050 Restrict Granule Access - Dev Draft
SVACT5B76 5B10050 Restrict Gran Access - ESDIS Rev
SVACT5B890 5B10050 -Granules & .meta files for ESDTs
SVACT5B880 5B10050 Restrict Granule Access - Dry-Run
SVACT5B882 5B10050 Restrict Granule Access - Formal Run
SVACT5B333 5B08020 User Profile Enhcmnts-Plan Test
SVACT5B329 5B08020 User Profile Enhcmnts - Dev Draft
SVACT5B331 5B08020 User Profile Enhcmnts- ESDIS Rev
SVACT5B335 5B08020 User Profile Enhcmnts- Dry Run
SVACT5B337 5B08020 User Profile Enhcmnts- Formal Run
SVACT5B357 5B08040 Update ESDT - Plan Test
SVACT5B353 5B08040 Update ESDT - Dev Draft
SVACT5B355 5B08040 Update ESDT - ESDIS Rev
SVACT5B370 5B08040 3 Granules of ESDT Test Data Available
SVACT5B375 5B08040 3 Granules ESDT Related Test Meta Data
SVACT5B380 5B08040 15 Files of ESDT Descriptor Test Data
SVACT5B359 5B08040 Update ESDT - Dry Run
SVACT5B361 5B08040 Update ESDT - Formal Run
SVACT5B381 5B10060 L7 Floating Scene Sub- Plan Test
SVACT5B377 5B10060 L7 Floating Scene Sub - Dev Draft
SVACT5B379 5B10060 L7 Floating Scene Sub- ESDIS Rev
SVACT5B394 5B10060 L70RF1/Brws/L70RF2 w/20 Scene Test Data
SVACT5B399 5B10060 L70RF1/Brws/L70RF2 w/8 Scene Test Data
SVACT5B404 5B10060 L70RF1/Brws/L70RF2 w/37 Scene Test Data
SVACT5B383 5B10060 L7 Floating Scene Sub- Dry Run
SVACT5B385 5B10060 L7 Floating Scene Sub- Formal Run
SVACT5B384 5B10060 L7 Floating Scene Sub- PV Dry Run
SVACT5B386 5B10060 L7 Floating Scene Sub- Formal PV Run
SVACT5B393 5B08050 L7 Error Handling - Plan Test
SVACT5B389 5B08050 L7 Error Handling - Dev Draft
SVACT5B391 5B08050 L7 Error Handling - ESDIS Rev
SVACT5B406 5B08050 L70RF1/Brws/L70RF2 w/Subint Comb Test D
SVACT5B411 5B08050 L70RF1/Brws/L70RF2 w/Subint Not Com Data
SVACT5B416 5B08050 L70RF1/Brws/L70RF2 w/Subint Force M Data
15DEC99 07JAN00 5B12030 - On-Demand ASTER Hi-Lev Pr - ESDIS Rev
22MAR00 03APR00 5B12030 - On-Demand ASTER Hi-Lev Pr - Dry-Run
5B12030 - On-Demand ASTER Hi-Lev Pr - Formal Run 04APR00 05APR00
5B12030 - On-Demand ASTER Hi-Lev Pr - PV Dry-Run 06APR00 18APR00
5B12030 - On-Dem ASTER Hi-Lev Pr - Formal PV Run 19APR00 24APR00
02AUG99A 20AUG99A 5B10050 Restrict Granule Access - Plan Test
01OCT99A 14DEC99 5B10050 Restrict Granule Access - Dev Draft
30NOV99 14DEC99 5B10050 Restrict Gran Access - ESDIS Rev
10DEC99* 5B10050 -Granules & .meta files for ESDTs
22MAR00 11APR00 5B10050 Restrict Granule Access - Dry-Run
5B10050 Restrict Granule Access - Formal Run 12APR00 19APR00
09AUG99A 16AUG99A 5B08020 User Profile Enhcmnts-Plan Test
02SEP99A 11NOV99 5B08020 User Profile Enhcmnts - Dev Draft
28OCT99 11NOV99 5B08020 User Profile Enhcmnts- ESDIS Rev
22MAR00 27MAR00 5B08020 User Profile Enhcmnts- Dry Run
28MAR00 29MAR00 5B08020 User Profile Enhcmnts- Formal Run
10AUG99A 20AUG99A 5B08040 Update ESDT - Plan Test
13OCT99* 23DEC99 5B08040 Update ESDT - Dev Draft
09DEC99 23DEC99 5B08040 Update ESDT - ESDIS Rev
10DEC99* 5B08040 3 Granules of ESDT Test Data Available
10DEC99* 5B08040 3 Granules ESDT Related Test Meta Data
10DEC99* 5B08040 15 Files of ESDT Descriptor Test Data
22MAR00 03APR00 5B08040 Update ESDT - Dry Run
04APR00 10APR00 5B08040 Update ESDT - Formal Run
02AUG99A 20AUG99A 5B10060 L7 Floating Scene Sub- Plan Test
01OCT99A 20DEC99 5B10060 L7 Floating Scene Sub - Dev Draft
06DEC99 20DEC99 5B10060 L7 Floating Scene Sub- ESDIS Rev
10DEC99* 5B10060 L70RF1/Brws/L70RF2 w/20 Scene Test Data
10DEC99* 5B10060 L70RF1/Brws/L70RF2 w/8 Scene Test Data
10DEC99* 5B10060 L70RF1/Brws/L70RF2 w/37 Scene Test Data
22MAR00 11APR00 5B10060 L7 Floating Scene Sub- Dry Run
12APR00 19APR00 5B10060 L7 Floating Scene Sub- Formal Run
5B10060 L7 Floating Scene Sub- PV Dry Run 20APR00 25APR00
5B10060 L7 Floating Scene Sub- Formal PV Run 26APR00 27APR00
09AUG99A 20AUG99A 5B08050 L7 Error Handling - Plan Test
09NOV99* 14JAN00 5B08050 L7 Error Handling - Dev Draft
22DEC99 14JAN00 5B08050 L7 Error Handling - ESDIS Rev
10JAN00* 5B08050 L70RF1/Brws/L70RF2 w/Subint Comb Test D
10JAN00* 5B08050 L70RF1/Brws/L70RF2 w/Subint Not Com Data
10JAN00* 5B08050 L70RF1/Brws/L70RF2 w/Subint Force M Data
Project Start 01SEP97
Project Finish 28SEP01
Data Date 08OCT99
Run Date 08OCT99
Early Bar
Progress Bar
Critical Activity
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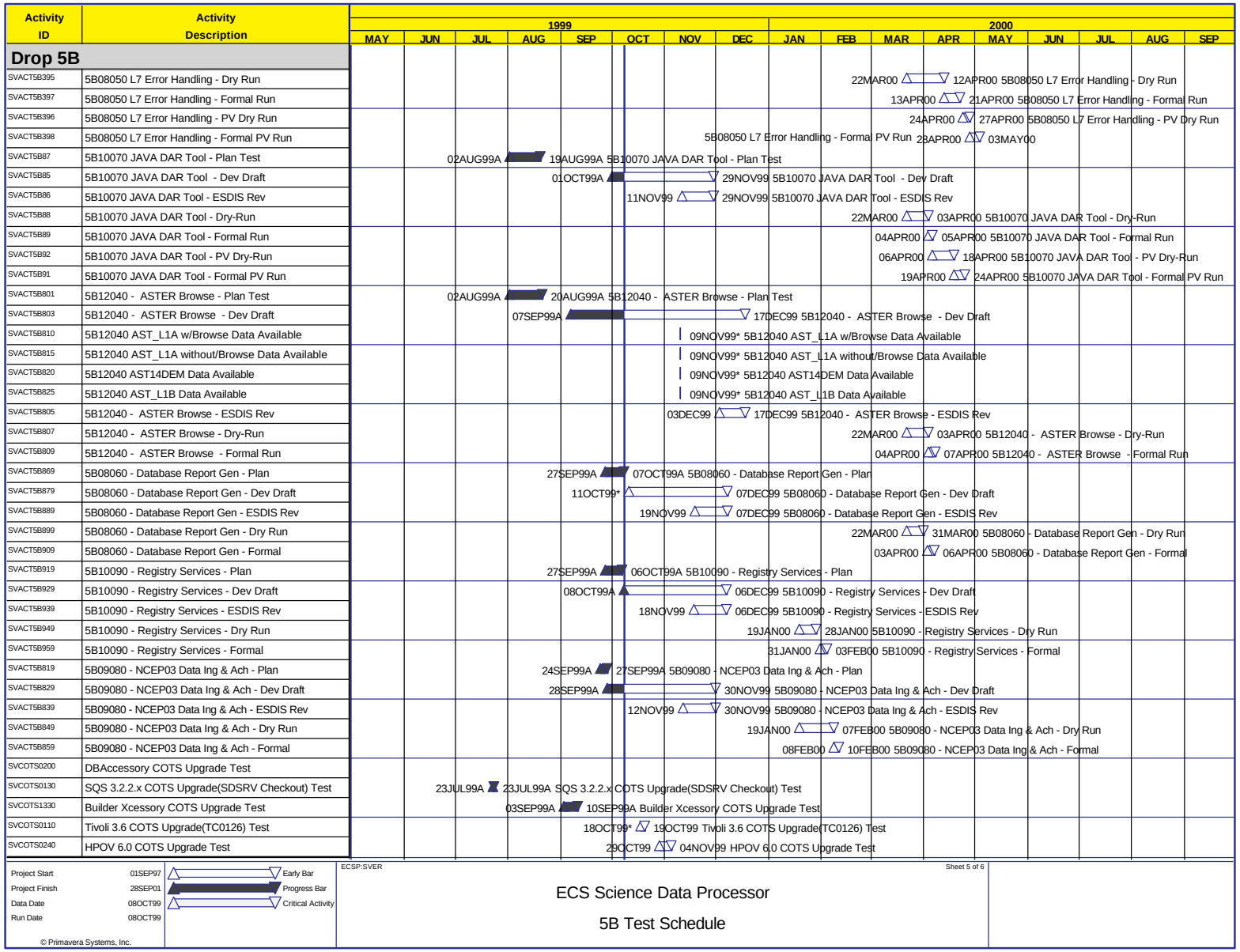
Sheet 4 of 6
ECS Science Data Processor
5B Test Schedule


Activity ID
Activity Description
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2000
MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
Drop 5B
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SVACT5B397 5B08050 L7 Error Handling - Formal Run
SVACT5B396 5B08050 L7 Error Handling - PV Dry Run
SVACT5B398 5B08050 L7 Error Handling - Formal PV Run
SVACT5B87 5B10070 JAVA DAR Tool - Plan Test
SVACT5B885 5B10070 JAVA DAR Tool - Dev Draft
SVACT5B86 5B10070 JAVA DAR Tool - ESDIS Rev
SVACT5B88 5B10070 JAVA DAR Tool - Dry-Run
SVACT5B89 5B10070 JAVA DAR Tool - Formal Run
SVACT5B892 5B10070 JAVA DAR Tool - PV Dry-Run
SVACT5B891 5B10070 JAVA DAR Tool - Formal PV Run
SVACT5B801 5B12040 - ASTER Browse - Plan Test
SVACT5B803 5B12040 - ASTER Browse - Dev Draft
SVACT5B810 5B12040 AST_L1A w/Browse Data Available
SVACT5B815 5B12040 AST_L1A without/Browse Data Available
SVACT5B820 5B12040 AST14DEM Data Available
SVACT5B825 5B12040 AST_L1B Data Available
SVACT5B805 5B12040 - ASTER Browse - ESDIS Rev
SVACT5B807 5B12040 - ASTER Browse - Dry-Run
SVACT5B809 5B12040 - ASTER Browse - Formal Run
SVACT5B869 5B08060 - Database Report Gen - Plan
SVACT5B879 5B08060 - Database Report Gen - Dev Draft
SVACT5B889 5B08060 - Database Report Gen - ESDIS Rev
SVACT5B899 5B08060 - Database Report Gen - Dry Run
SVACT5B909 5B08060 - Database Report Gen - Formal
SVACT5B919 5B10090 - Registry Services - Plan
SVACT5B929 5B10090 - Registry Services - Dev Draft
SVACT5B939 5B10090 - Registry Services - ESDIS Rev
SVACT5B949 5B10090 - Registry Services - Dry Run
SVACT5B959 5B10090 - Registry Services - Formal
SVACT5B819 5B09080 - NCEP03 Data Ing & Ach - Plan
SVACT5B829 5B09080 - NCEP03 Data Ing & Ach - Dev Draft
SVACT5B839 5B09080 - NCEP03 Data Ing & Ach - ESDIS Rev
SVACT5B849 5B09080 - NCEP03 Data Ing & Ach - Dry Run
SVACT5B859 5B09080 - NCEP03 Data Ing & Ach - Formal
SVCOTS0200 DBAccessory COTS Upgrade Test
SVCOTS0130 SQS 3.2.2.x COTS Upgrade(SDSRV Checkout) Test
SVCOTS1330 Builder Xcessory COTS Upgrade Test
SVCOTS0110 Tivoli 3.6 COTS Upgrade(TC0126) Test
SVCOTS0240 HPOV 6.0 COTS Upgrade Test
22MAR00 12APR00 5B08050 L7 Error Handling - Dry Run
13APR00 21APR00 5B08050 L7 Error Handling - Formal Run
24APR00 27APR00 5B08050 L7 Error Handling - PV Dry Run
5B08050 L7 Error Handling - Formal PV Run 28APR00 03MAY00
02AUG99A 19AUG99A 5B10070 JAVA DAR Tool - Plan Test
01OCT99A 29NOV99 5B10070 JAVA DAR Tool - Dev Draft
11NOV99 29NOV99 5B10070 JAVA DAR Tool - ESDIS Rev
22MAR00 03APR00 5B10070 JAVA DAR Tool - Dry-Run
04APR00 05APR00 5B10070 JAVA DAR Tool - Formal Run
06APR00 18APR00 5B10070 JAVA DAR Tool - PV Dry-Run
19APR00 24APR00 5B10070 JAVA DAR Tool - Formal PV Run
02AUG99A 20AUG99A 5B12040 - ASTER Browse - Plan Test
07SEP99A 17DEC99 5B12040 - ASTER Browse - Dev Draft
09NOV99* 5B12040 AST_L1A w/Browse Data Available
09NOV99* 5B12040 AST_L1A without/Browse Data Available
09NOV99* 5B12040 AST14DEM Data Available
09NOV99* 5B12040 AST_L1B Data Available
03DEC99 17DEC99 5B12040 - ASTER Browse - ESDIS Rev
22MAR00 03APR00 5B12040 - ASTER Browse - Dry-Run
04APR00 07APR00 5B12040 - ASTER Browse - Formal Run
27SEP99A 07OCT99A 5B08060 - Database Report Gen - Plan
11OCT99* 07DEC99 5B08060 - Database Report Gen - Dev Draft
19NOV99 07DEC99 5B08060 - Database Report Gen - ESDIS Rev
22MAR00 31MAR00 5B08060 - Database Report Gen - Dry Run
03APR00 06APR00 5B08060 - Database Report Gen - Formal
27SEP99A 06OCT99A 5B10090 - Registry Services - Plan
08OCT99A 06DEC99 5B10090 - Registry Services - Dev Draft
18NOV99 06DEC99 5B10090 - Registry Services - ESDIS Rev
19JAN00 28JAN00 5B10090 - Registry Services - Dry Run
31JAN00 03FEB00 5B10090 - Registry Services - Formal
24SEP99A 27SEP99A 5B09080 - NCEP03 Data Ing & Ach - Plan
28SEP99A 30NOV99 5B09080 - NCEP03 Data Ing & Ach - Dev Draft
12NOV99 30NOV99 5B09080 - NCEP03 Data Ing & Ach - ESDIS Rev
19JAN00 07FEB00 5B09080 - NCEP03 Data Ing & Ach - Dry Run
08FEB00 10FEB00 5B09080 - NCEP03 Data Ing & Ach - Formal
23JUL99A 23JUL99A SQS 3.2.2.x COTS Upgrade(SDSRV Checkout) Test
03SEP99A 10SEP99A Builder Xcessory COTS Upgrade Test
18OCT99* 19OCT99 Tivoli 3.6 COTS Upgrade(TC0126) Test
29OCT99 04NOV99 HPOV 6.0 COTS Upgrade Test
Project Start 01SEP97
Project Finish 28SEP01
Data Date 08OCT99
Run Date 08OCT99
Early Bar
Progress Bar
Critical Activity
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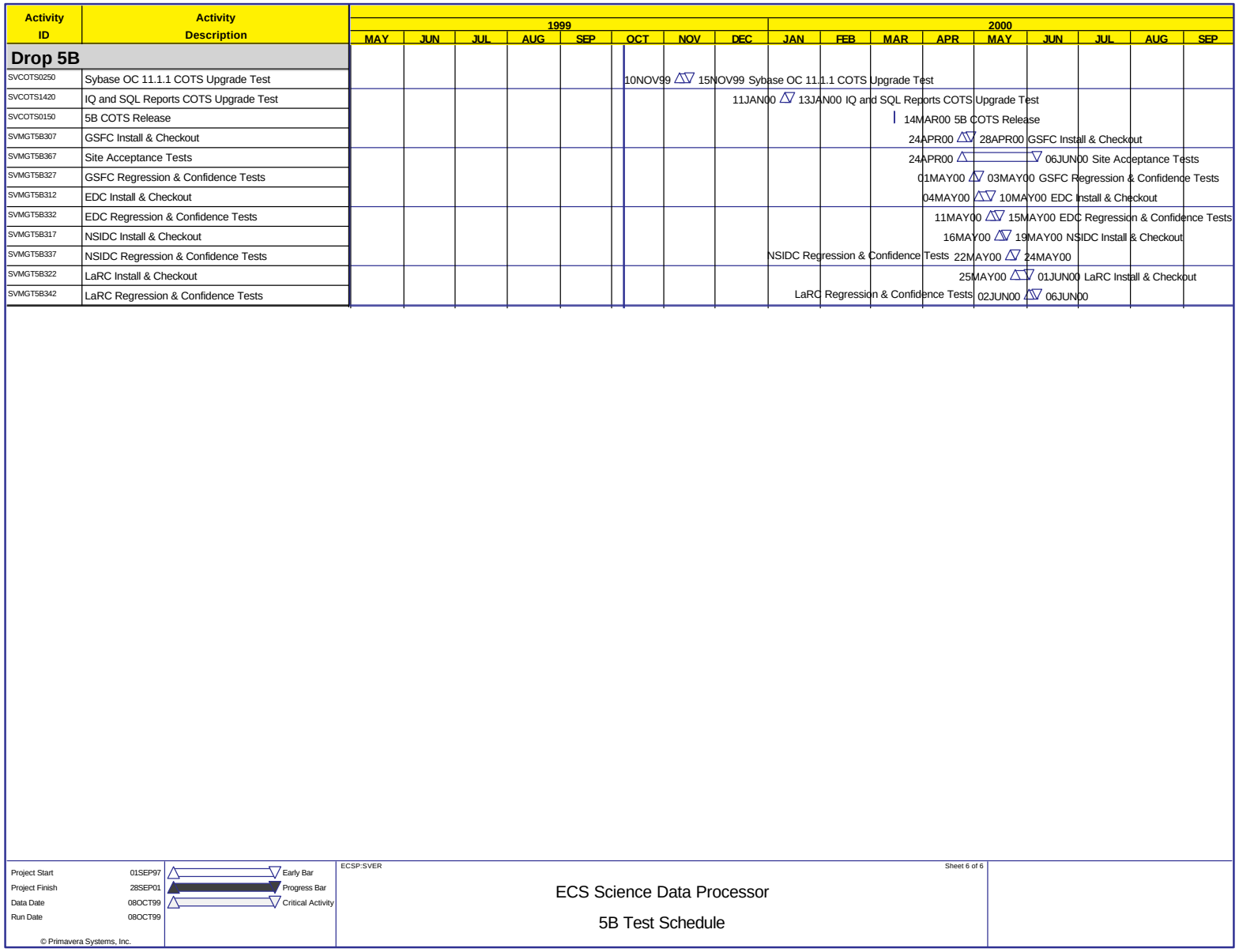
Sheet 5 of 6
ECS Science Data Processor
5B Test Schedule


Activity ID
Activity Description
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MAY JUN JUL AUG SEP OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP
Drop 5B
SVCOTS0250 Sybase OC 11.1.1 COTS Upgrade Test
10NOV99 15NOV99 Sybase OC 11.1.1 COTS Upgrade Test
SVCOTS1420 IQ and SQL Reports COTS Upgrade Test
11JAN00 13JAN00 IQ and SQL Reports COTS Upgrade Test
SVCOTS0150 5B COTS Release
14MAR00 5B COTS Release
SVMGT5B307 GSFC Install & Checkout
24APR00 28APR00 GSFC Install & Checkout
SVMGT5B367 Site Acceptance Tests
24APR00 06JUN00 Site Acceptance Tests
SVMGT5B327 GSFC Regression & Confidence Tests
01MAY00 03MAY00 GSFC Regression & Confidence Tests
SVMGT5B312 EDC Install & Checkout
04MAY00 10MAY00 EDC Install & Checkout
SVMGT5B332 EDC Regression & Confidence Tests
11MAY00 15MAY00 EDC Regression & Confidence Tests
SVMGT5B317 NSIDC Install & Checkout
16MAY00 19MAY00 NSIDC Install & Checkout
SVMGT5B337 NSIDC Regression & Confidence Tests
NSIDC Regression & Confidence Tests 22MAY00 24MAY00
SVMGT5B322 LaRC Install & Checkout
25MAY00 01JUN00 LaRC Install & Checkout
SVMGT5B342 LaRC Regression & Confidence Tests
LaRC Regression & Confidence Tests 02JUN00 06JUN00
Project Start 01SEP97
Project Finish 28SEP01
Data Date 08OCT99
Run Date 08OCT99
Early Bar
Progress Bar
Critical Activity
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Sheet 6 of 6
ECS Science Data Processor
5B Test Schedule

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